CROWN® JAPAN

SERVICE MANUAL

Component System with CD Player

CD-2000

CD-2000 (US)
CD-2000 (UK)
CD-2000L(UK)
CD-2000 (E)
CD-2000L(E)
CD-2000S(X)

SPECIFICATIONS

CD SYSTEM

Function : Multifunction LCD Display, Pause, Skip, Program and Repeat
System : Compact disc digital audio system
Pick-up : Semi-conductor laser
780nm (wave length) 3-Beam
Output level at CD out : 1.3 V (50K Ω)
Frequency Response : 16 Hz - 20 KHz

RADIO SYSTEM

Frequency Range

	CD-2000(US) CD-2000(UK) CD-2000(E)	CD-2000 L(UK) CD-2000L(E)	CD-2000S(X)
FM(MHz)	88 - 108	88 - 108	88 - 108
MW(KHz)	530 - 1605	530 - 1605	530 - 1605
LW(KHz)		150 - 300	
SW(MHz)			6 - 18

IF ..... FM : 10.7 MHz
MW, LW, SW : 455 KHz
468 KHz ((UK) only)

Frequency Response
FM : 100 Hz - 10 KHz ± 6 dB
MW : 100 Hz - 2.2 KHz ± 6 dB

TAPE RECORDER SYSTEM

Track System ..... 4-track 2-channel Stereo
Tape Speed ..... 4.75 cm/sec. ± 0.2 %
Wow and Flutter ..... Less than 0.35 %
(Play, JIS WRMS)
Frequency Response .... 125 - 10,000 Hz
Output Power ..... 5.0 W x 2

GENERAL

Speaker System ..... 4 inch Speaker x 2
Power Source
AC :
CD-2000(US) : 120 V 60 Hz
CD-2000(UK)/L(UK) : 240 V 50 Hz
CD-2000(E)/L(E) : 220 V 50 Hz
CD-2000S(X) : 115/230 V 50/60 Hz
Dimensions ..... Approx. 430(W) x 357(H) x 340(D) mm
Weight ..... Approx. 6.6 Kg

NOTE : All specifications and cabinet design are subject to change without notice for improvement.

ELECTRIC MEASURING AND ADJUSTING METHOD

Adjusting Conditions

Power Source Voltage : D.C. 9 V
Test disk : SONY TYPE 4 or EIAJ CD-1
Unless otherwise expressly stipulated, the switches should be set at the following conditions :

COUNT Switch	: CIFI
ASY Switch	: OPEN
TE Switch	: SHORT
FE Switch	: SHORT
SIGNAL Switch	: FG
TEST Switch	: OFF
S601	: OPEN

Adjustment

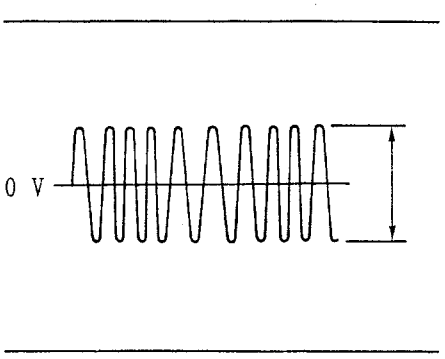
1. Adjustment of VCC free-run frequency
   Set ASY Switch at SHORT and COUNT Switch at PLCK.
   At TEST POINT ②, measure the frequency with the frequency counter.
   Turn VR605 so that the frequency is adjusted to 4.3218 MHz.
   (Speficications : 4.3218 MHz ± 10 KHz)

2. FOCUS SEARCH Checking
   Turn off the power source once and turn on TEST Switch. Turn on the power source so that the microcomputer is set at TEST MODE.
   Under the TEST MODE, push the REPEAT KEY of Control PCB once, and check that the lens comes up so that FOCUS ON state is present. Press the REPEAT KEY once again and check that the lens goes down so that FOCUS DOWN state is present.
   When the REPEAT KEY is pressed for the third time, the lens GOES OFF so that FOCUS OFF state is present.

3. FOCUS BIAS Adjustment
   Under the TEST MODE and when the PLAY/PAUSE KEY of control PCB is pressed after having set the DISK, FOCUS SEARCH goes on and MUTE PLAY state is present.
   At TEST POINT ④, observe the eye pattern and adjust VR602 so that the optimum jitter point is attained on the jitter meter.
   (Specification : 30 ns or less)

4. E. GAIN (TE OFFSET) Adjustment

Following the above state, when the PROGRAM KEY is pushed once, the SLED/TRACKING SERVO is turned off, and it is turned on again when the PROGRAM KEY is pushed once again. Now, under the SLED/TRACKING SERVO OFF state and at TEST POINT ⑤, check the TE output waveform (with the oscillograph DC coupling). Turn VR601 so that the waveform attains horizontal symmetry centering on the 0 V line.



5. In the state just after 3. FOCUE BIAS Adjustment, set the FE Switch at AMP and SIGNAL Switch at FG.

Apply 1 KHz -20 dB signal at TEST POINT ⑥, and measure with a VTVM the output of FGA and FGB, respectively, at TEST POINT ⑧. Adjust by turning VR603 so that output levels of FGA and FGB are made equal.

(Specifications : The level difference between FGA and FGB shall be within 0.5 dB.)

6. TRACKING GAIN Adjustment

In the state just after 3. FOCUS BIAS Adjustment, set the TE Switch at AMP and SIGNAL Switch at TG.

Apply 1 KHz -20 dB signal at TEST POINT ⑥, and measure with a VTVM the output of FGA and FGB, respectively, at TEST POINT ⑦. Adjust by turning VR604 so that output levels of TGA and TGB are made equal.

NOTE: Turn off the power switch once before releasing TEST MODE and stopping MUTE PLAY.

(Specifications : The level difference between FGA and FGB shall be within 0.5 dB.)

7. D/A OUT LEVEL Checking

Turn on power switch after setting S601 at shortcircuited state. Set the disk and open S601.

Check at this time from the LCD display that TOC has been read-out.

Play back the 1 KHz 0 dB signal and measure the output voltage at TEST POINT ①.

Check at this time that the output level is -10 dB.

(Specifications : -10 dB ± 1 dB)

8. CD OUT LEVEL Checking

In the status obtained from the above D/A OUT LEVEL Checking, measure the output voltage at TEST POINT ①.

(Specifications : 1.5 V ± 1 dB)

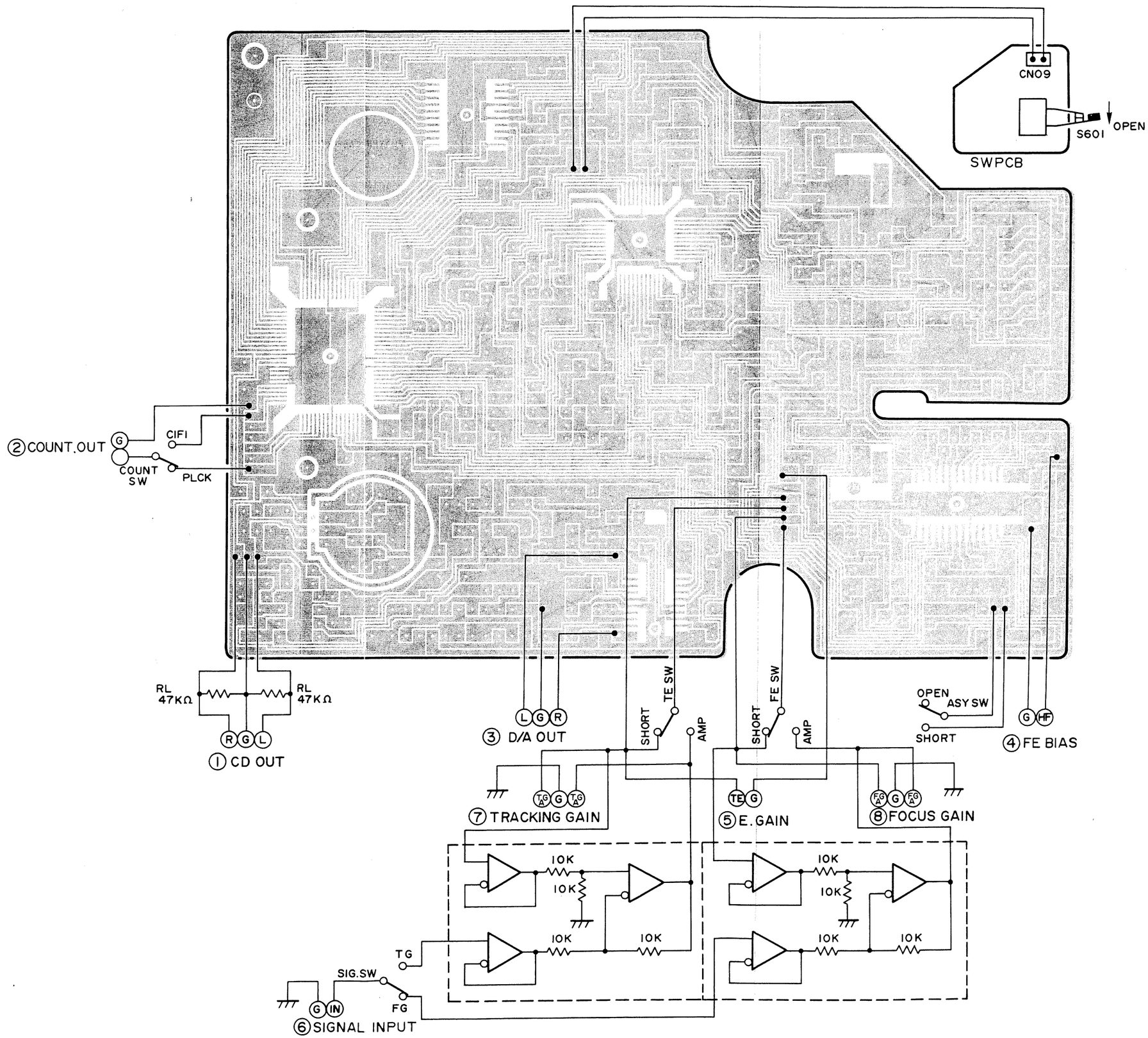
9. Error Count Check

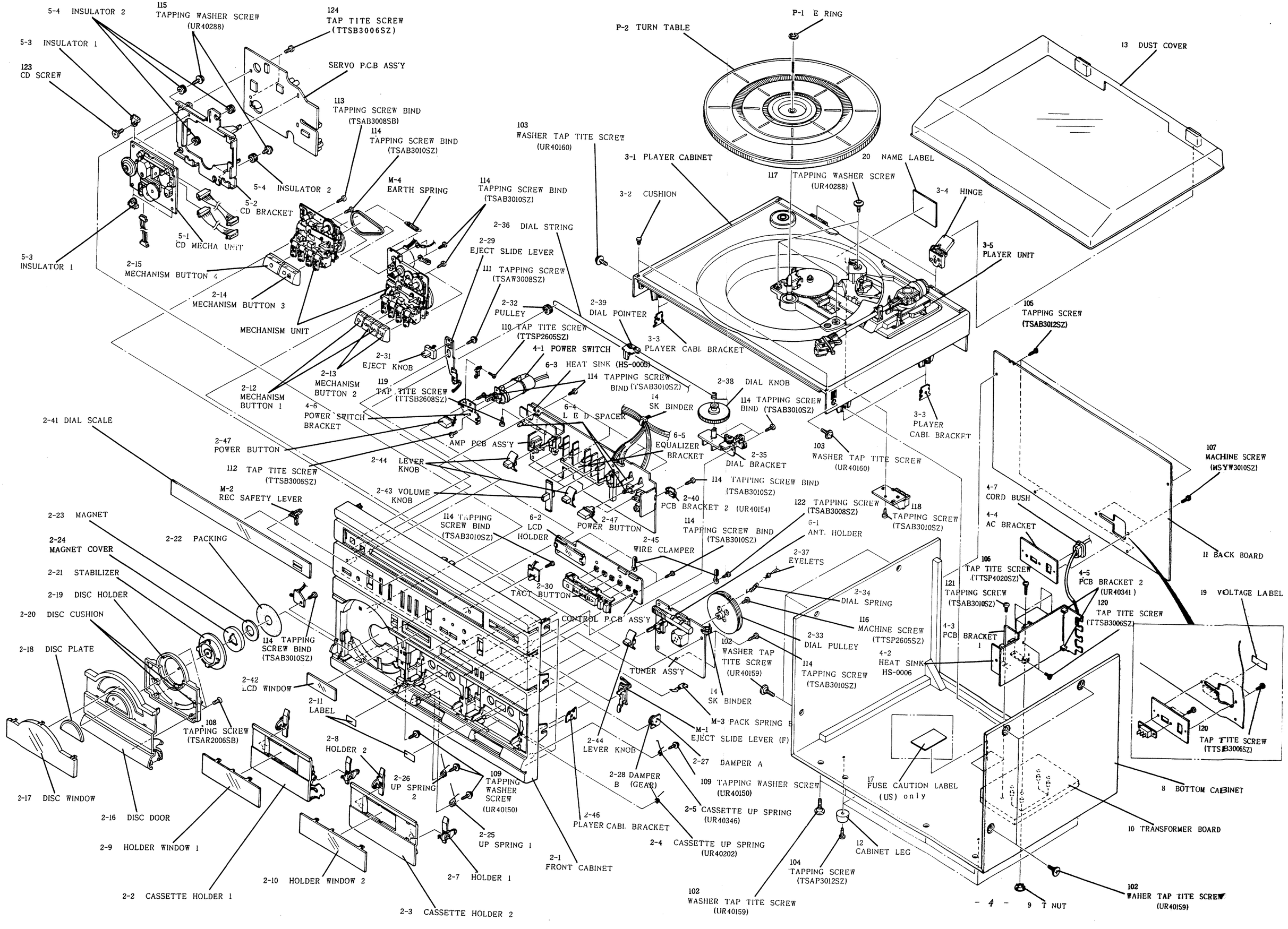
In the status obtained from the aforementioned D/A OUT LEVEL Checking, set COUNT Switch at CiFi.

At TEST POINT ②, measure the error count with the frequency counter.

Be careful for the measurement that no flaw nor dirt exists on the disk.

(Specifications : 50 count or less)




5-4 INSULATOR 2
115 TAPPING WASHER SCREW (UR40288)
124 TAP TITE SCREW (TTSB3006SZ)
5-3 INSULATOR 1
123 CD SCREW
SERVO P.C.B ASS'Y
113 TAPPING SCREW BIND (TSAB3008SB)
114 TAPPING SCREW BIND (TSAB3010SZ)
5-4 INSULATOR 2
M-4 EARTH SPRING
5-2 CD BRACKET
5-1 CD MECHA UNIT
5-3 INSULATOR 1
2-15 MECHANISM BUTTON 4
2-14 MECHANISM BUTTON 3
MECHANISM UNIT
114 TAPPING SCREW BIND (TSAB3010SZ)
2-36 DIAL STRING
2-29 EJECT SLIDE LEVER
111 TAPPING SCREW (TSAW3008SZ)
2-32 PULLEY
2-39 DIAL POINTER
110 TAP TITE SCREW (TTSP2605SZ)
4-1 POWER SWITCH
6-3 HEAT SINK (HS-0005)
2-31 EJECT KNOB
2-13 MECHANISM BUTTON 2
2-12 MECHANISM BUTTON 1
119 TAP TITE SCREW (TTSB2608SZ)
114 TAPPING SCREW BIND (TSAB3010SZ)
14 SK BINDER
6-4 L E D SPACER
4-6 POWER SWITCH BRACKET
2-41 DIAL SCALE
2-47 POWER BUTTON
AMP PCB ASS'Y
6-5 EQUALIZER BRACKET
112 TAP TITE SCREW (TTSB3006SZ)
2-44 LEVER KNOB
2-43 VOLUME KNOB
M-2 REC SAFETY LEVER
2-40 PCB BRACKET 2 (UR40154)
114 TAPPING SCREW BIND (TSAB3010SZ)
2-47 POWER BUTTON
114 TAPPING SCREW BIND (TSAB3010SZ)
6-2 LCD HOLDER
2-45 WIRE CLAMPER
2-23 MAGNET
2-24 MAGNET COVER
2-22 PACKING
2-21 STABILIZER
2-19 DISC HOLDER
2-20 DISC CUSHION
2-30 TACT BUTTON
CONTROL P.C.B ASS'Y
114 TAPPING SCREW BIND (TSAB3010SZ)
2-18 DISC PLATE
2-42 LCD WINDOW
2-11 LABEL
108 TAPPING SCREW (TSAR2006SB)
2-8 HOLDER 2
2-26 UP SPRING 2
109 TAPPING WASHER SCREW (UR40150)
2-17 DISC WINDOW
2-16 DISC DOOR
2-9 HOLDER WINDOW 1
2-10 HOLDER WINDOW 2
2-25 UP SPRING 1
2-7 HOLDER 1
2-1 FRONT CABINET
2-3 CASSETTE HOLDER 2
2-2 CASSETTE HOLDER 1
P-1 E RING
P-2 TURN TABLE
13 DUST COVER
103 WASHER TAP TITE SCREW (UR40160)
3-1 PLAYER CABINET
20 NAME LABEL
117 TAPPING WASHER SCREW (UR40288)
3-2 CUSHION
3-4 HINGE
3-5 PLAYER UNIT
105 TAPPING SCREW (TSAB3012SZ)
3-3 PLAYER CABI. BRACKET
2-38 DIAL KNOB
114 TAPPING SCREW BIND (TSAB3010SZ)
2-35 DIAL BRACKET
103 WASHER TAP TITE SCREW (UR40160)
107 MACHINE SCREW (MSYW3010SZ)
114 TAPPING SCREW BIND (TSAB3010SZ)
122 TAPPING SCREW (TSAB3008SZ)
118 TAPPING SCREW (TSAB3010SZ)
6-1 ANT. HOLDER
4-7 CORD BUSH
4-4 AC BRACKET
11 BACK BOARD
2-37 EYELETS
106 TAP TITE SCREW (TTSP4020SZ)
121 TAPPING SCREW (TSAB3010SZ)
4-5 PCB BRACKET 2 (UR40341)
19 VOLTAGE LABEL
2-34 DIAL SPRING
120 TAP TITE SCREW (TTSB3006SZ)
116 MACHINE SCREW (TTSP2605SZ)
4-3 PCB BRACKET 1
2-33 DIAL PULLEY
102 WASHER TAP TITE SCREW (UR40159)
4-2 HEAT SINK HS-0006
114 TAPPING SCREW (TSAB3010SZ)
TUNER ASS'Y
14 SK BINDER
M-3 PACK SPRING B
M-1 EJECT SLIDE LEVER (F)
2-44 LEVER KNOB
2-27 DAMPER A
2-28 DAMPER B (GEAR)
109 TAPPING WASHER SCREW (UR40150)
17 FUSE CAUTION LABEL (US) only
8 BOTTOM CABINET
2-5 CASSETTE UP SPRING (UR40346)
2-46 PLAYER CABI. BRACKET
2-4 CASSETTE UP SPRING (UR40202)
10 TRANSFORMER BOARD
12 CABINET LEG
104 TAPPING SCREW (TSAP3012SZ)
102 WASHER TAP TITE SCREW (UR40159)
9 T NUT
102 WAHER TAP TITE SCREW (UR40159)

REPLACEMENT PARTS LIST

MAIN COMPONENT ASS'Y

REF. NO.	NAME	Q'TY	CD-2000(US)	CD-2000(UK)	CD-2000(E)	CD-2000L(E)/ S(X)
	SPEAKER BOX SYSTEM	1	CDP-2000	←	←	←
	PLASTIC BAG	1	CC40008-28	←	←	←
	PLASTIC BAG	1	CC40008-06	←	←	←
	STYRENE FOAM 1	1	UR10068	←	←	←
	STYRENE FOAM 2	1	UR10069	←	←	←
	STYRENE FOAM 3	1	UR20132	←	←	←
	PROTECTOR BOARD 1	2	CR40064-21	←	←	←
	DISPLAY BOX	1	CR40056-329	←	←	←
	INSTRUCTION LEAFLET	1	R-1375A	←	←	←
	SAFETY INSTRUCTION	1	CN-149	--	--	--
	FTZ INSTRUCTION	1	--	--	CN-148A	--
	UPC CODE LABEL	1	R41865	--	--	--
	SAFETY SEAL	2	--	R41845	--	--
	SERIAL NUMBER LABEL	1	UR40164	--	--	--
	NEW FTZ LABEL	1	--	--	UR40433-27	--
	WARRANTY CARD	1	B-230	--	--	--

FINAL ASS'Y

REF. NO.	NAME	Q'TY	CD-2000(US)	CD-2000(UK)/ L(UK)/ (E)/L(E)	CD-2000S(X)	REMARKS
8	BOTTOM CABINET	1	UR10062-01	←	←	
	SP SCREW	2	M3x D6.7xL20	←	←	
9	T NUT	4	H-4-8	←	←	
10	TRANSFORMER BOARD	1	UR40402	←	←	
11	BACK BOARD	1	UR30174-1-01	←	←	
12	CABINET LEG	4	UR40153	←	←	
102	WASHER TAP TITE SCREW	10	UR40159	←	←	
103	WASHER TAP TITE SCREW	2	UR40160	←	←	
104	TAPPING SCREW	4	TSAP3012SZ	←	←	
105	TAPPING SCREW	4	TSAB3012SZ	←	←	
106	TAP TITE SCREW	4	TTSP4020SZ	←	←	
13	DUST COVER	1	UR10061-01	←	←	
107	MACHINE SCREW	2	MSYW3010SZ	←	←	
14	SK BINDER	2	SKB-1MD	←	←	
	DATE LABEL	1	UR40163	--	--	
	CLASS I LABEL	1	--	UR40311-01	--	
17	FUSE CAUTION LABEL	1	UR40178-02	--	--	
	DHHS LABEL	1	UR40302-01	--	--	
19	VOLTAGE LABEL	1	--	--	UR40428	
	WIRE LIST	1	YS-0114	←	←	
20	NAME LABEL	1	CD-2000 (US): CR40025-599		CD-2000 (E): CR40025-606	
			CD-2000 (UK): CR40025-604		CD-2000L(E): CR40025-605	
			CD-2000L(UK): CR40025-658		CD-2000S(X): CR40025-609	

REPLACEMENT PARTS LIST

FRONT CABINET ASS'Y

REF. NO.	NAME	Q'TY	CD-2000(US)/(UK)/(E)	CD-2000L(E)/L(UK)	CD-2000S(X)	REMARKS
2-1	FRONT CABINET	1	UR10059-01	UR10059-03	UR10059-02	
2-2	CASSETTE HOLDER 1	1	UR20127-01	←	←	
2-3	CASSETTE HOLDER 2	1	UR20128-01	←	←	
2-4	CASSETTE UP SPRING	1	UR40202	←	←	
2-5	CASSETTE UP SPRING	1	UR40346	←	←	
2-7	HOLDER 1	2	UR30097	←	←	
2-8	HOLDER 2	2	UR30098	←	←	
2-9	HOLDER WINDOW 1	1	UR30157	←	←	
2-10	HOLDER WINDOW 2	1	UR30158	←	←	
2-11	LABEL	2	R82220-033	←	←	
2-12	MECHANISM BUTTON 1	1	UR30160-01	←	←	
2-13	MECHANISM BUTTON 2	1	UR30161-01	←	←	
2-14	MECHANISM BUTTON 3	1	UR30162-01	←	←	
2-15	MECHANISM BUTTON 4	1	UR30163-01	←	←	
2-16	DISC DOOR	1	UR20129-01	←	←	
2-17	DISC WINDOW	1	UR30159-01	←	←	
2-18	DISC PLATE	1	UR40332-01	←	←	
2-19	DISC HOLDER	1	UR30141/1-01	←	←	
2-20	DISC CUSHION	2	UR40319	←	←	
108	TAPPING SCREW	5	TSAR2006SB	←	←	
2-21	STABILIZER	1	UR40275	←	←	
2-22	PACKING	1	UR40276	←	←	
2-23	MAGNET	1	UR40107	←	←	
2-24	MAGNET COVER	1	UR40095	←	←	
2-25	UP SPRING 1	1	UR40345	←	←	
2-26	UP SPRING 2	1	UR40347	←	←	
2-27	DAMPER A	3	UR40327	←	←	
2-28	DAMPER B	3	UR40328	←	←	
2-29	EJECT SLIDE LEVER	1	UR40337	←	←	
2-30	TACT BUTTON	1	UR30165-01	←	←	
2-31	EJECT KNOB	1	UR40271-01	←	←	
109	TAPPING WASHER SCREW	4	UR40150	←	←	
2-32	PULLEY	4	UR40323	←	←	
2-33	DIAL PULLEY	1	UR30167	←	←	
2-34	DIAL SPRING	1	UR40325	←	←	
2-35	DIAL BRACKET	1	UR30166	←	←	
2-36	DIAL STRING	1.14m	UR40336	←	←	
2-37	EYELETS	1	E2030BZ	←	←	
2-38	DIAL KNOB	1	UR40349-01	←	←	
2-39	DIAL POINTER	1	UR40338	←	←	
2-40	PCB BRACKET 2	1	UR40154	←	←	

REPLACEMENT PARTS LIST

FRONT CABINET ASS'Y (Cont'd)

REF. NO.	NAME	Q'TY	CD-2000(US)/(UK)/(E)	CD-2000L(E)/L(UK)	CD-2000S(X)	REMARKS
2-41	DIAL SCALE	1	UR30156-01	UR30156-03	UR30156-02	
2-42	LCD WINDOW	1	UR40335-01	←	←	
2-43	VOLUME KNOB	5	UR40334	←	←	
2-44	LEVER KNOB	3	UR40023-01	←	←	
2-45	WIRE CLAMPER	3	UR40226	←	←	
2-46	PLAYER CAB BRACKET	8	UR40158	←	←	
2-47	POWER BUTTON	3	UR40333	←	←	
110	TAP TITE SCREW	1	TTSP2605SZ	←	←	
111	TAPPING WASHER SCREW	1	TSAW3008SZ	←	←	
112	TAP TITE SCREW	2	TTSB3006SZ	←	←	
113	TAPPING SCREW BIND	1	TSAB3008SB	←	←	
114	TAPPING SCREW BIND	24	TSAB3010SZ	←	←	
115	TAPPING WASHER SCREW	4	UR40288	←	←	
116	MACHINE SCREW	1	MSYB2605SZ	←	←	

PLAYER CABINET ASS'Y

REF. NO.	PARTS NO.	NAME	Q'TY	REMARKS
3-1	UR10060-01	PLAYER CABINET	1	
3-2	UR40139	CUSHION	2	
117	UR40288	TAPPING WASHER SCREW	3	Player
3-5	UP-0002	PLAYER UNIT	1	DL-44
3-3	UR40158	PLAYER CABI. BRACKET	4	
3-4	SZS-PSAB-001	HINGE	2	
	TSAB3010SZ	TAPPING SCREW	1	SP. Jack PCB 1

C D ASS'Y

REF. NO.	PARTS NO.	NAME	Q'TY	REMARKS
5-1	MU-0006	CD MECHA UNIT	1	Sony AX-5
5-2	UR30138	CD BRACKET	1	
5-3	UR40253	INSULATOR 1	4	
5-4	UR40254	INSULATOR 2	4	
123	UR40280	CD SCREW	4	
124	TTSB3006SZ	TAP TITE SCREW	2	PCB - Bracket
	CPLD1031-10	SERVO PCB ASS'Y	1	

DISASSEMBLY

1. Removal of Player Cabinet
   Remove the 6 screws (1 ~ 6) shown in Fig. 1a and 1b.
2. Removal of Bottom Cabinet
   Remove the 6 screws (7 ~ 12) shown in Fig. 1a and 1b.
3. Removal of Back Board
   Remove the 4 screws (13 ~ 16) shown in Fig. 1a and 1b.

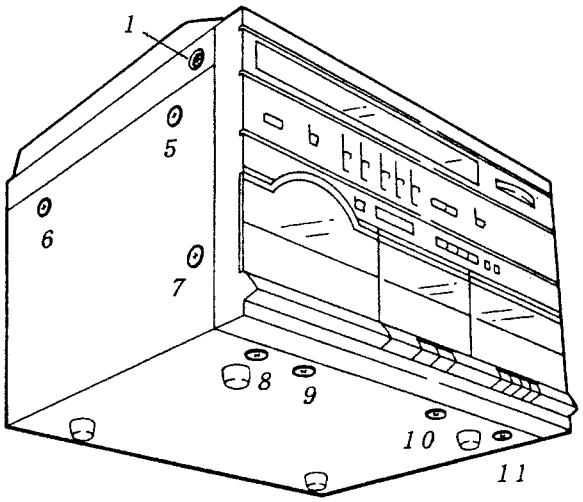


Fig. 1a

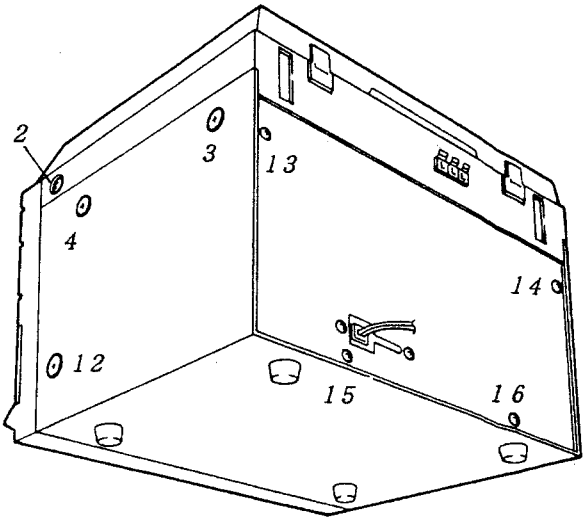


Fig. 1b

4. Removal of CD Mechanism
   Remove the 4 screws (17 ~ 20) shown in Fig. 2.

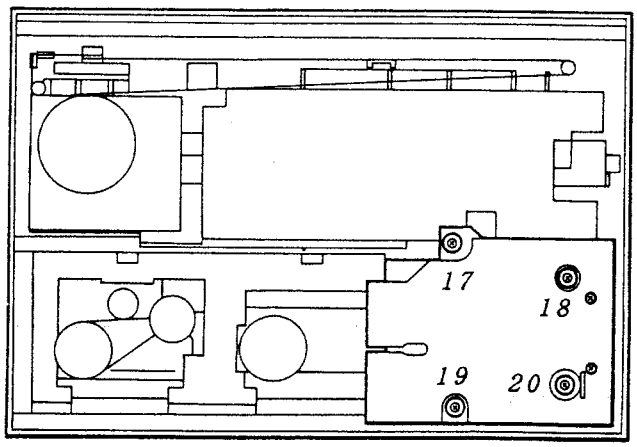
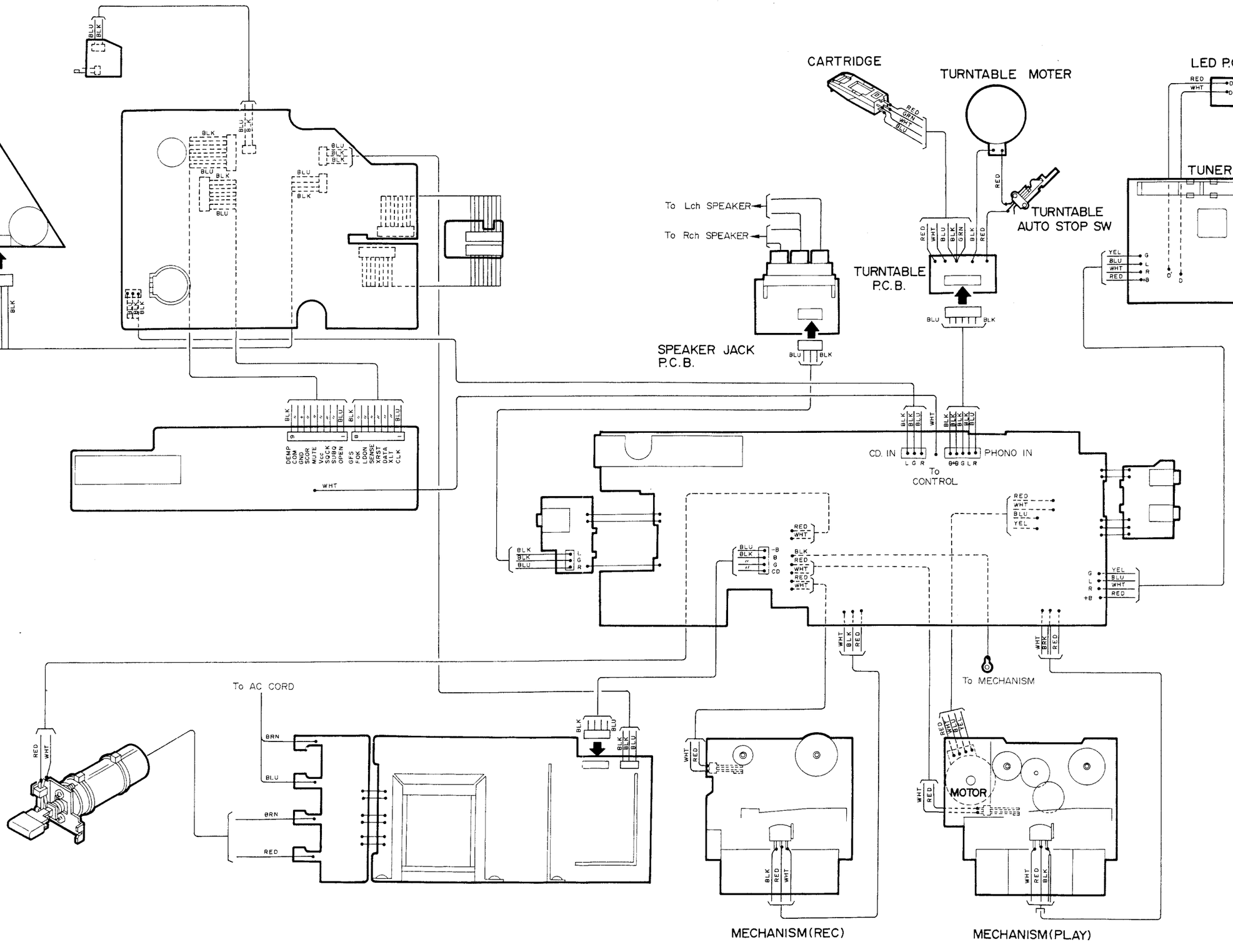


Fig. 2

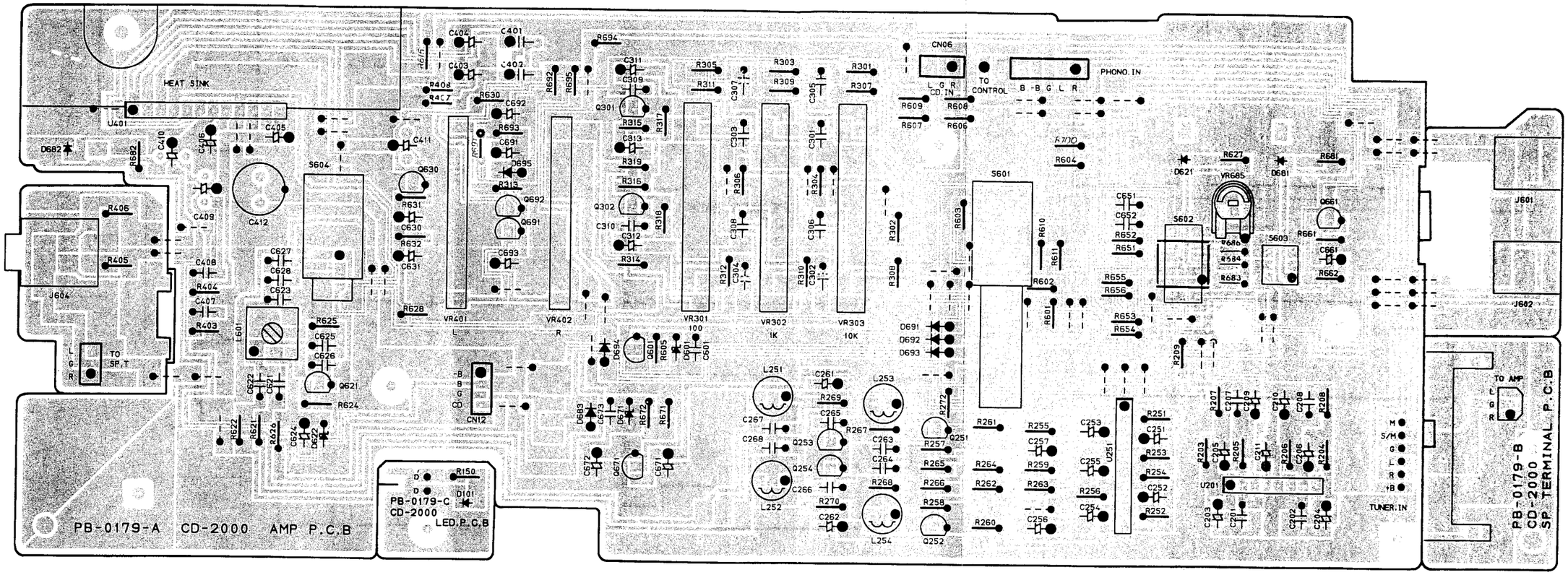
Screw No.	Name	Parts No.
1 and 2	Washer Tap Tite Screw	UR40160
3 ~ 12	Washer Tap Tite Screw	UR40159
13 ~ 16	Tapping Screw	TSAB3012SZ
17 ~ 20	Tapping Washer Screw	UR40288

LEAD CONNECTION



P.C.B. LAYOUT

PB-0179 AMPLIFIER P.C.B.



REPLACEMENT PARTS LIST

AMPLIFIER ASS'Y

REF. NO.	NAME	Q'TY	CD-2000(US)/ (UK)/(E)	CD-2000S(X)/ L(UK)/L(E)	REMARKS
	I. C	1	LA3160	←	U201
	I. C	1	BA3312N	←	U251
	I. C	1	AN7149	←	U401
	VARIABLE RESISTOR	3	VR-0052	←	VR301, 302, 303
	〃 〃	2	VR-0054	←	VR401, 402
	SEMI-FIXED RESISTOR	1	VR-0024-1K	←	VR685 (ϕ = 8)
	LEVER SWITCH	1	SW-0081	←	S601 Func.
	PUSH SWITCH	1	SW-0082	←	S602 H. Speed
	PUSH SWITCH	1	SW-0083	←	S603 Synchro.
	LEVER SWITCH	1	SW-0095	←	S604 Beat
	MIC JACK	2	JK-0007	←	J601, 602
	SPEAKER JACK	1	JK-0010	←	J603
	HEADPHONE JACK	1	JK-0011	←	J604
	OSC COIL	1	LA-0005	←	L601
	AF COIL	2	AM-LS-569	←	L251, 252 (47 mH)
	AF COIL	2	AM-LS-579	←	L253, 254 (5.6mH)
	PLUG CONNECTOR	1	PC-0020-3P	←	
6-3	HEAT SINK	1	HS-0005	←	
	TAP TITE SCREW	3	TTSB2606SZ	←	
	L E D	3	LTL-4203 or LN21RPH. EX	←	D621, 681, 682
	L E D	1	SLR-54VR5	←	D101
6-4	LED SPACER	3	UR40330	←	
6-5	EQUALIZER BRACKET	1	UR40331	←	
	CN. RESISTOR	3	RHD08J-2R2	←	R403, 404, 624
	〃	1	RHD08J-330	←	R672
	〃	1	RHD08J-680	←	R700
	〃	5	RHD08J-101	←	R405, 406, 407, 408, 693
	〃	2	RHD08J-121	←	R203, 204
	〃	2	RHD08J-151	←	R209, 256
	〃	1	RHD08J-181	←	R628
	〃	2	RHD08J-221	←	R267, 268
	〃	3	RHD08J-271	←	R253, 254, 683
	〃	1	RHD08J-331	←	R671
	〃	1	RHD08J-471	←	R632
	〃	1	RHD08J-561	←	R150
	〃	1	RHD08J-681	←	R605
	〃	2	RHD08J-102	←	R265, 266
	〃	4	RHD08J-152	←	R259, 260, 608, 609
	〃	1	RHD08J-182	←	R662

AMPLIFIER ASS'Y (Cont'd)

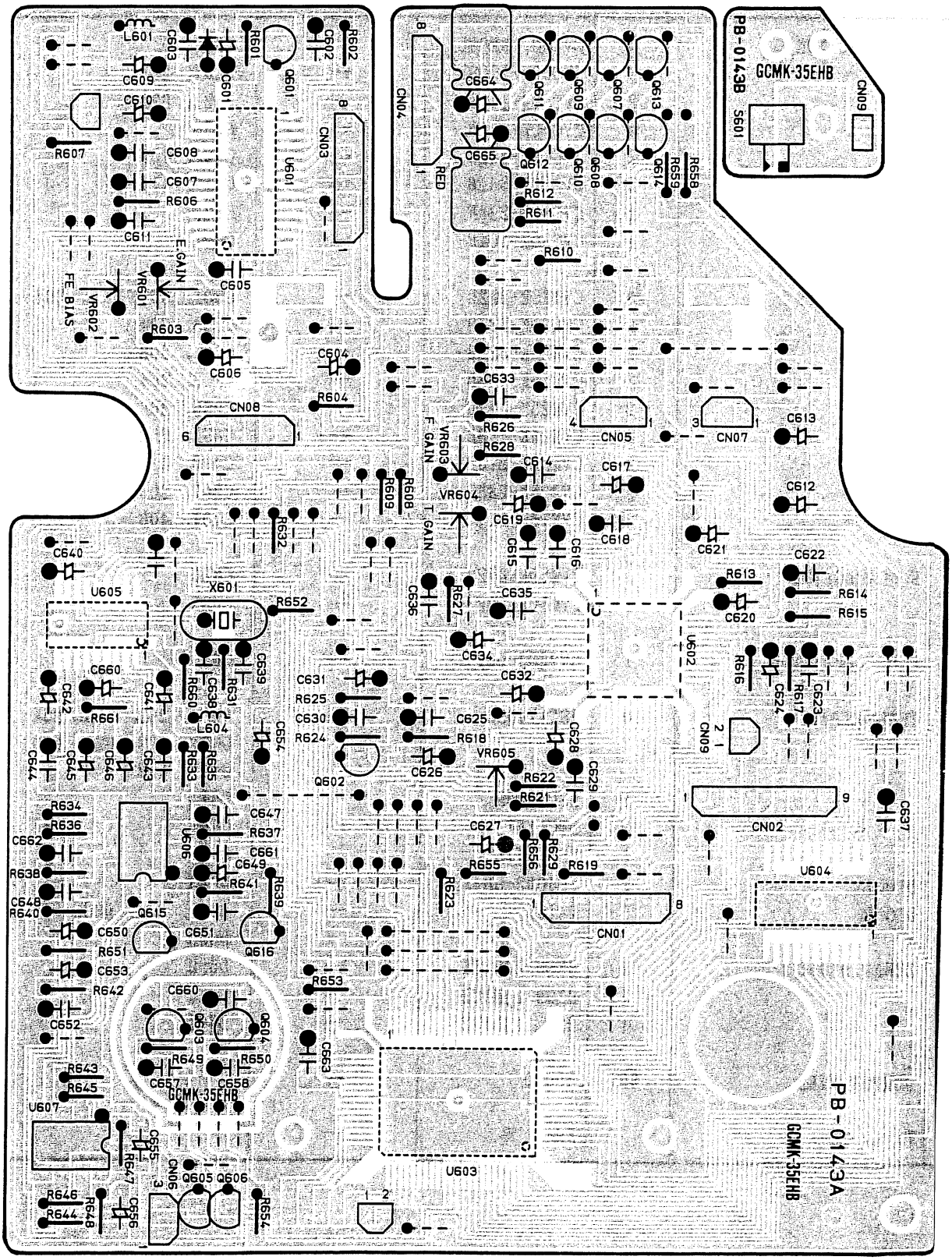
REF. NO.	NAME	Q'TY	CD-2000(US)/ (UK)/(E)	CD-2000S(X)/ L(UK)/L(E)	REMARKS
	CN. RESISTOR	7	RHD08J-222	←	R263, 264, 315, 316 R319, 686, 694
	〃	3	RHD08J-272	←	R625, 627, 682
	〃	4	RHD08J-332	←	R257, 258, 653, 654
	〃	7	RHD08J-472	←	R207, 208, 313, 314 R655, 656, 684
	〃	8	RHD08J-103	←	R261, 262, 272, 301 R302, 307, 308, 691
	〃	6	RHD08J-123	←	R269, 270, 303, 304 R309, 310
	〃	2	RHD08J-183	←	R610, 611
	〃	1	--	RHD08J-273	R615
	〃	6	RHD08J-333	←	R305, 306, 311, 312 R606, 607
	〃	1	RHD08J-473	←	R631
	〃	2	RHD08J-563	←	R621, 622
	〃	2	RHD08J-823	←	R651, 652
	〃	4	RHD08J-104	←	R205, 206, 661, 692
	〃	2	RHD08J-224	←	R601, 602
	〃	2	RHD08J-274	←	R603, 604
	〃	2	RHD08J-474	←	R317, 318
	〃	1	RHD08J-105	←	R255
	CN. RESISTOR	1	RVD02J-271	←	R626
	A. CAPACITOR	2	CVA10M- 33	←	C251, 252
	〃	5	CVA10M- 47	←	C205, 206, 405, 406 C671
	〃	5	CVA10M-100	←	C211, 313, 403, 404 C624
	〃	1	CVA10M-220	←	C255
	〃	1	CVA10M-330	←	C630
	〃	3	CVA10M-470	←	C409, 410, 672
	〃	5	CVA16M- 10	←	C203, 204, 256, 691 C692
	〃	1	CVA16M- 22	←	C257
	〃	1	CVA25M- 22	←	C631
	〃	2	CVA25M-100	←	C411, 680
	〃	1	CVA25M-470	←	C412
	〃	2	CVA50M-R 1	←	C311, 312
	〃	9	CVA50M- 1	←	C209, 210, 253, 254 C261, 262, 401, 402, C661

AMPLIFIER ASS'Y (Cont'd)

REF. NO.	NAME	Q'TY	CD-2000(US)/ (UK)/(E)	CD-2000S(X)/ L(UK)/L(E)	REMARKS
	C. CAPACITOR	1	CVC50J-620SL	←	C627
	〃	2	CVC50J-750SL	←	C267, 268
	〃	2	CVC50J-101SL	←	C621, 622
	〃	1	CVC50K-221B	←	C628
	〃	2	CVC50K-182B	←	C201, 202
	〃	2	CVC50K-331B	←	C413, 414
	〃	1	CVC50Z-223F	←	C673
	〃	1	CVC50Z-104F	←	C601
	R. CAPACITOR	4	CVR25K-222B	←	C301, 302, 305, 306
	〃	2	CVR25K-682B	←	C303, 304
	〃	2	CVR25K-822B	←	C307, 308
	〃	2	CVR25K-103B	←	C263, 264
	〃	2	CVR25K-123B	←	C265, 266
	〃	2	CVR25K-153B	←	C651, 652
	〃	2	CVR25K-273B	←	C309, 310
	〃	2	CVR25K-333B	←	C207, 208
	〃	2	CVR16M-104	←	C407, 408
	M. CAPACITOR	1	CVM50K-472	←	C626
	〃	1	CVM50K-822	←	C625
	P.P. CAPACITOR	1	CVP50J-561	←	C623
	TRANSISTOR	10	2SC1740SS	←	Q251, 252, 253, 254 Q301, 302, 621, 630 Q691, 692
	〃	1	2SC2060R	←	Q671
	〃	1	DTC114TS	←	Q661
	〃	1	2SC1741SR	←	Q601
	DIODE	1	IN4002-BD-82	←	D683
	DIODE	5	MA165	←	D691, 692, 693, 694 D695
	ZENER DIODE	1	HZS6.2JB1TE	←	D622
	〃	1	HZS9.1JB1TE	←	D671
	〃	1	HZS 11JB1TE	←	D601
	JUMPER WIRE	62	JP050	←	
	P. C. B	1	PB-0179	←	

P.C.B. LAYOUT

PB-0143 SERVO P.C.B.



REPLACEMENT PARTS LIST

SERVO P.C.B. ASS'Y

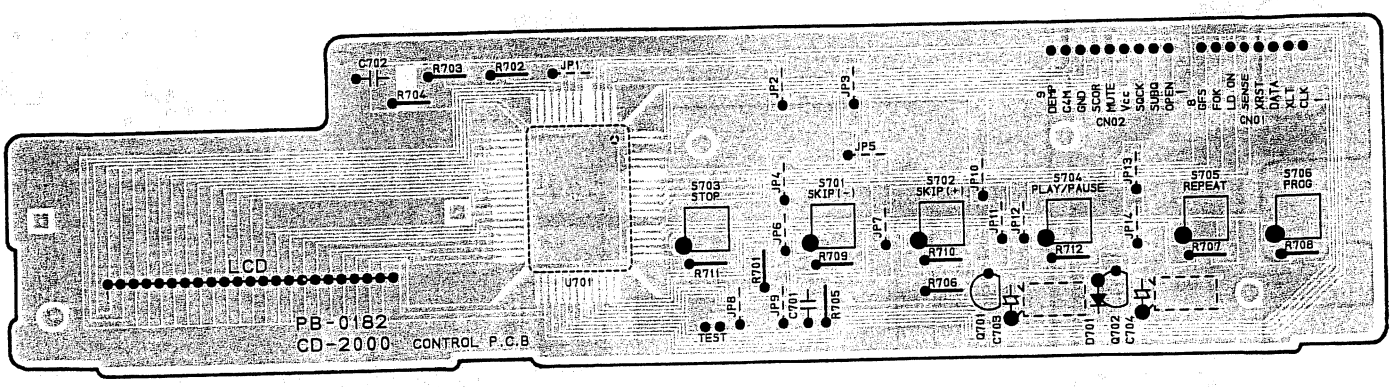
REF. NO.	PARTS NO.	NAME	Q'TY	REMARKS
	CXA1081M	I. C	1	U601
	CXA1082AQ	I. C	1	U602
	CXD1130Q	I. C	1	U603
	CXK5816M-15	I. C	1	U604
	CXD1140BM	I. C	1	U605
	BA4558	I. C (DIP)	2	U606, 607
	2SA854Q or R	TRANSISTOR	1	Q601
	2SB909MQ or R	〃	4	Q607, 609, 611, 613
	2SD1225MQ or R	〃	4	Q608, 610, 612, 614
	2SC1740SS	〃	4	Q602, 603, 604, 616
	DTA144ES	〃	1	Q615
	DTC114TS	〃	2	Q605, 606
	XT-0005	CRYSTAL	1	X601
	VR-0040-20K	SEMI FIXED RESISTOR	3	VR601, 603, 604
	VR-0040-50K	〃	1	VR602
	VR-0053-2.2K	〃	1	VR605
	PC-0020-2P	PLUG CONNECTOR	1	CN09
	PC-0020-3P	〃	1	CN06
	PC-0020-4P	〃	1	CN05
	PC-0020-8P	〃	2	CN01, 03
	PC-0020-8P-X	〃	1	CN04 (X :Red)
	PC-0020-9P	〃	1	CN02
	PC-0016-3P	〃	1	CN07
	CVAR6M-100	A. CAPACITOR	7	C601, 624, 634, 640 C645, 653, 654
	CVAR6M-220	〃	2	C664, 665
	CVAR6M-470	〃	2	C612, 613
	CVA10M- 22	〃	2	C620, 628
	CVA10M- 33	〃	3	C606, 609, 646
	CVA10M- 47	〃	3	C604, 619, 632
	CVA10M-4R7-X	〃	2	C655, 656 (X =BP)
	CVA16M- 10	〃	5	C641, 642, 649, 650 C660
	CVA50M-4R7	〃	1	C617
	CVA50M-R22	〃	1	C621
	CVA50M-R47	〃	3	C610, 626, 631
	CVA50M- 1	〃	1	C627
	LA-0008- 10u	COIL	1	L601 (10uH)
	LA-0012- 68u	COIL	2	L658, 659
	CVM50K-102	M. CAPACITOR	2	C603, 629
	CVM50K-152	〃	2	C647, 648
	CVM50K-222	〃	2	C614, 635
	CVM50K-472	〃	1	C625
	CVM50K-103	〃	4	C602, 608, 611, 623

SERVO P.C.B. ASS'Y (Cont'd)

REF. NO.	PARTS NO.	NAME	Q'TY	REMARKS
	CVM50K-153	M. CAPACITOR	1	C622
	CVM50K-183	〃	1	C616
	CVM50K-223	〃	1	C633
	CVM50K-273	〃	2	C657, 658
	CVM50K-333	〃	3	C605, 607, 630
	CVM50K-473	〃	1	C636
	CVL50J-104	TF. CAPACITOR	2	C615, 618
	CVC50Z-223F	C. CAPACITOR	2	C637, 663
	CVC50K-681B	〃	2	C651, 652
	CVC50J-361SL	〃	2	C661, 662
	CVC50J-220CH	〃	2	C638, 639
	CVP50J-222	PP. CAPACITOR	2	C643, 644
	RHD08J-220	CN. RESISTOR	1	R601
	RHD08J-470	〃	3	R604, 651, 652
	RHD08J-391	〃	2	R649, 650
	RHD08J-102	〃	2	R647, 648
	RHD08J-152	〃	1	R620
	RHD08J-272	〃	3	R643, 644, 660
	RHD08J-332	〃	1	R622
	RHD08J-562	〃	1	R661
	RHD08J-822	〃	3	R615, 641, 642
	RHD08J-103	〃	11	R619, 628, 629, 635 R636, 637, 638, 645 R646, 653, 654
	RHD08J-113	〃	1	R607
	RHD08J-123	〃	1	R608
	RHD08J-153	〃	1	R613
	RHD08J-203	〃	1	R624
	RHD08J-223	〃	2	R602, 603
	RHD08J-753	〃	1	R626
	RHD08J-823	〃	1	R612
	RHD08J-104	〃	10	R606, 610, 611, 616 R618, 623, 633, 634 R639, 640
	RHD08J-124	〃	2	R614, 621
	RHD08J-474	〃	1	R627
	RHD08J-514	〃	1	R617
	RHD08J-105	〃	2	R625, 631
	RHN08G-104	M. RESISTOR	2	R655, 656
	RS-0001-100	FUSIBLE RESISTOR	1	R632 (10 Ω)
	JP050	JUMPER WIRE	93	
	JP150B	〃	4	
	PB-0143	P. C. B	1	
	SW-0065	LEAF SWITCH	1	S601

P.C.B. LAYOUT

PB-0182 CONTROL P.C.B.



REPLACEMENT PARTS LIST

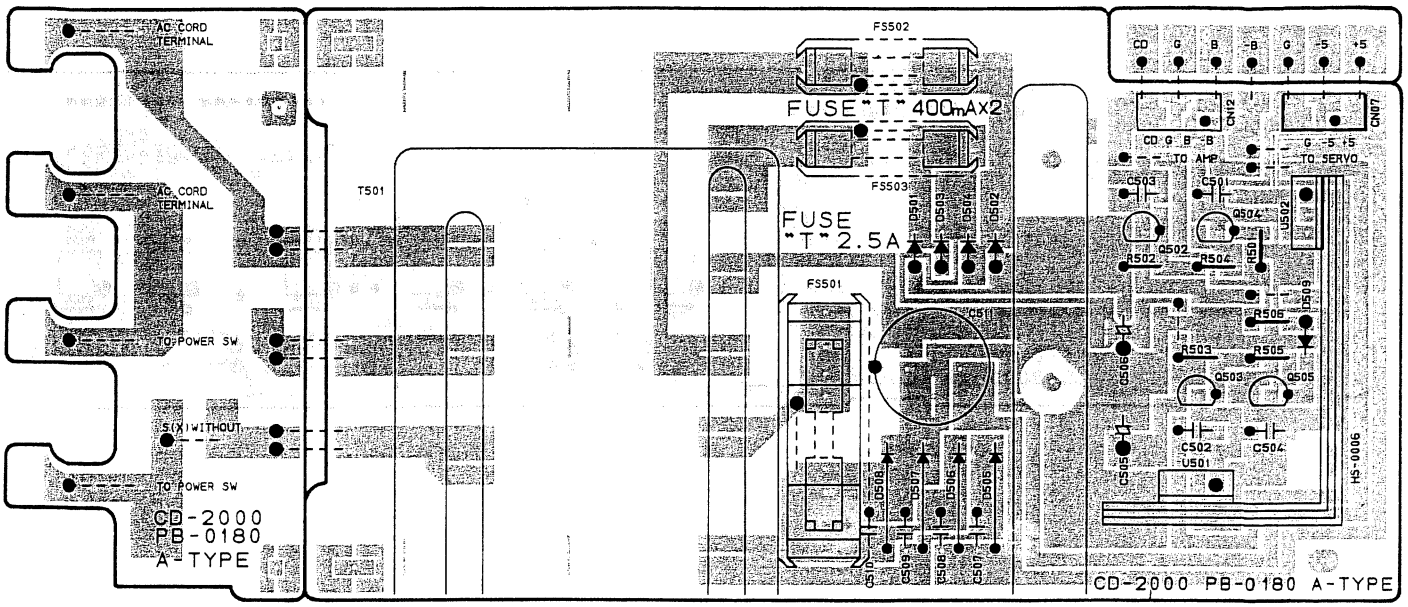
CONTROL P.C.B. ASS'Y

REF. NO.	PARTS NO.	NAME	Q'TY	REMARKS
	ZT-0036	L C D	1	
6-2	UR40115	L C D HOLDER	1	
	CXP-5024H-033Q	I. C	1	U701
	DTA144EF	TRANSISTOR	1	Q701
	DTC144EF	TRANSISTOR	1	Q702
	SS133 or MA165	DIODE	1	D701
	SW-0073 or SW-0017	TACT SWITCH	6	S701, 702, 703, 704 S705, 706
	CVA50M-2R2 -X	A. CAPACITOR	1	C704 (ϕ =4 x 7)
	CVA50M-R22 -X	〃	1	C703 (ϕ =4 x 7)
	CHC50Z-103F	C. CAPACITOR	2	C701, 702
	RHD08J-103	CN. RESISTOR	1	R701
	RHD08J-223	〃	4	R702, 703, 704, 705
	RHD08J-331	〃	6	R707, 708, 709, 710 R711, 712
	RHD08J-472	〃	1	R706
	JP050	JUMPER	14	
	PB-0182	P. C. B	1/4	

P.C.B. LAYOUT

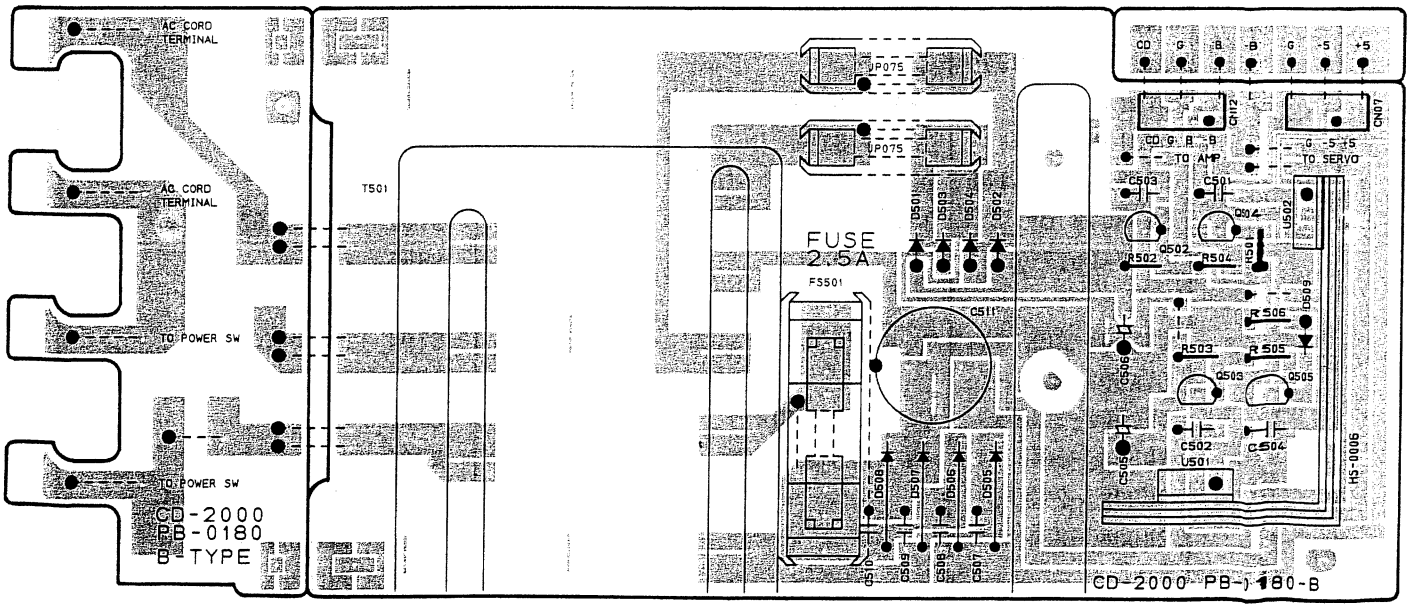
PB-0180-A POWER P.C.B.

CD-2000S(X)



PB-0180-B POWER P.C.B.

CD-2000(US)/(UK)/L(UK)/(E)/L(E)



REPLACEMENT PARTS LIST

POWER P.C.B. ASS'Y

CD-2000S(X)

REF. NO.	NAME	Q'TY	CD-2000S(X)	REMARKS
	I. C	1	M5F7805	U501
	I. C	1	M5F7905	U502
	TRANSISTOR	1	2SC3377R	Q502
	TRANSISTOR	1	2SB909MQ or R	Q503
	TRANSISTOR	2	2SC1740SS	Q504, 505
	DIODE	4	RL-102-N02	D501, 502, 503, 504
	DIODE	4	RL-152	D505, 506, 507, 508
	DIODE	1	1SS133 or MA165	D509
	A. CAPACITOR	1	CVA25M-3300	C511(ϕ=16)
	A. CAPACITOR	2	CVA16M-1000	C505, 506 (ϕ=10)
	R. CAPACITOR	2	CVR25M-104	C503, 504
	C. CAPACITOR	4	CVC50Z-223F	C507, 508, 509, 510
	CN. RESISTOR	2	RHD08J-102	R504, 505
	CN. RESISTOR	4	RHD08J-103	R501, 502, 503, 506
	LEAF SWITCH	1	SW-0051	S613
4-1	POWER SWITCH	1	SW-0093	S501
	SLIDE SWITCH	1	SW-0094	S502
	PLUG CONNECTOR	1	PC-0021-4P	CN12
4-2	HEAT SINK	1	HS-0006	
119	TAP TITE SCREW	2	TTSB2608SZ	
	JUMPER WIRE	5	JP050	
	"	2	JP075B	
	"	7	JP100B	
	POWER TRANSFORMER	1	PT-0052	T501
	P. C. B	1/3	PB-0180-A	
4-3	PCB BRACKET 1	1	UR40340	Trans
4-4	AC BRACKET	1	UR40339	
4-5	PCB BRACKET 2	2	UR40341	Power pcb
4-6	POWER SWITCH BRACKET	1	UR40343	Power SW - Front
4-7	CORD BUSH	1	ZT-0039	
	AC CORD	1	AM-YS-355	
	PRINT CHIP	4	AM-ZE-345	
120	TAP TITE SCREW	4	TTSB3006SZ	
121	TAPPING SCREW	1	TSAB3010SZ	

REPLACEMENT PARTS LIST

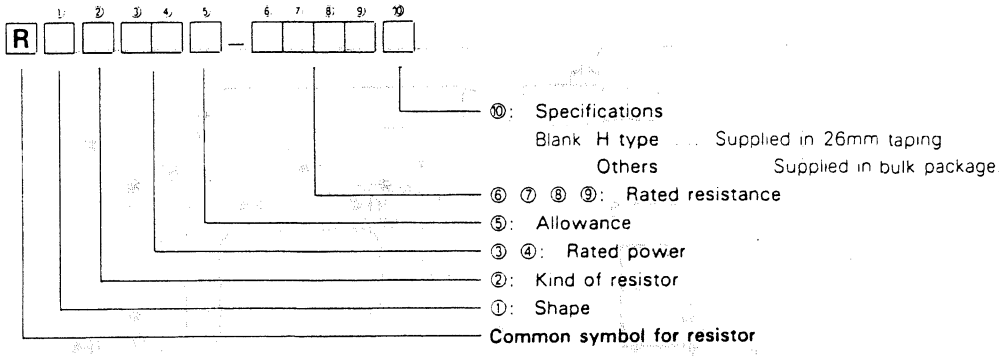
POWER P.C.B. ASS'Y

CD-2000(US)/(UK)/L(UK)/(E)/L(E)

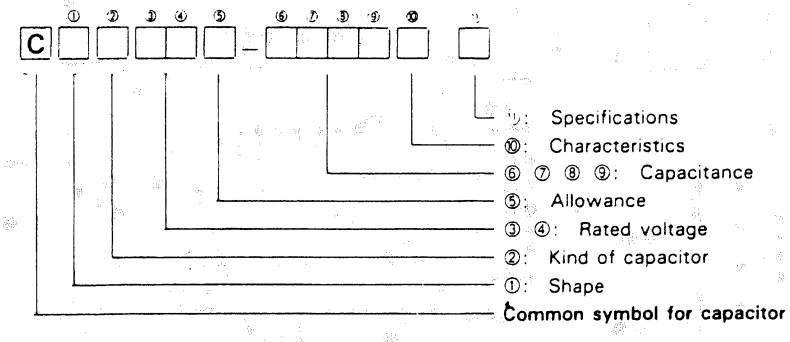
REF. NO.	NAME	Q'TY	CD-2000(US)	CD-2000(UK)/ L(UK)	CD-2000(E)/L(E)
	I. C	1	M5F7805	←	←
	I. C	1	M5F7905	←	←
	TRANSISTOR	1	2SC3377R	←	←
	TRANSISTOR	1	2SB909MQ or R	←	←
	TRANSISTOR	2	2SC1740SS	←	←
	DIODE	4	RL-102-N02	←	←
	DIODE	4	RL-152	←	←
	DIODE	1	1SS133 or MA165	←	←
	A. CAPACITOR	1	CVA25M-3300	←	←
	A. CAPACITOR	2	CVA16M-1000	←	←
	R. CAPACITOR	2	CVR25M-104	←	←
	C. CAPACITOR	4	CVC50Z-223F	←	←
	CN. RESISTOR	2	RHD08J-102	←	←
	CN. RESISTOR	4	RHD08J-103	←	←
	LEAF SWITCH	1	SW-0051	←	←
4-1	POWER SWITCH	1	SW-0093	←	←
	POWER SWITCH COVER	1	ZT-0041	←	←
	PLUG CONNECTOR	1	PC-0021-4P	←	←
	S.K BINDER	2	SKB-1MD	←	←
4-2	HEAT SINK	1	HS-0006	←	←
119	TAP TITE SCREW	2	TTSB2608SZ	←	←
	JUMPER WIRE	5	JP050	←	←
	〃	3	JP075B	--	--
	〃	1	--	JP075B	←
	〃	6	JP100B	←	←
	FUSE LINK	2	--	FS-0003	←
	FUSE LINK	1	FS-0017	FS-0011	←
	FUSE HOLDER	2	AM-D-183	--	--
	FUSE HOLDER	6	--	ZT-0003	←
	POWER TRANSFORMER	1	PT-0050	PT-0053	PT-0051
	P. C. B	1/3	PB-0180-B	←	←
4-3	PCB BRACKET 1	1	UR40340	←	←
4-4	AC BRACKET	1	UR40339	←	←
4-5	PCB BRACKET 2	2	UR40341	←	←
4-6	POWER SWITCH BRACKET	1	UR40343	←	←
4-7	CORD BUSH	1	ZT-0039	←	←
	AC CORD	1	AM-YS-360	AM-YS-352	AM-YS-351
	PRINT CHIP	4	AM-ZE-345	←	←
120	TAP TITE SCREW	2	TTSB3006SZ	←	←
121	TAPPING SCREW	1	TSAB3010SZ	←	←

HOW TO READ PARTS NUMBERS

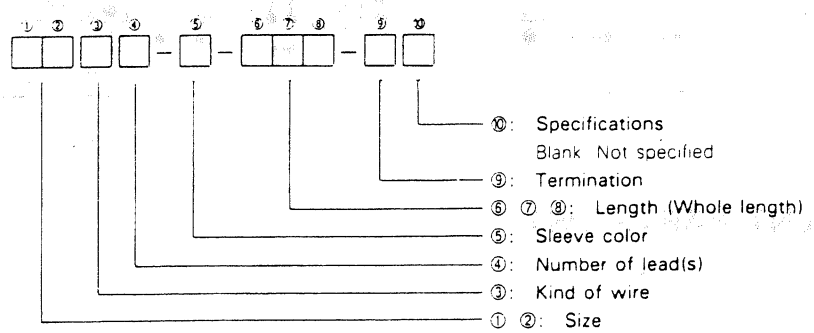
1. Resistor (Fixed resistor)



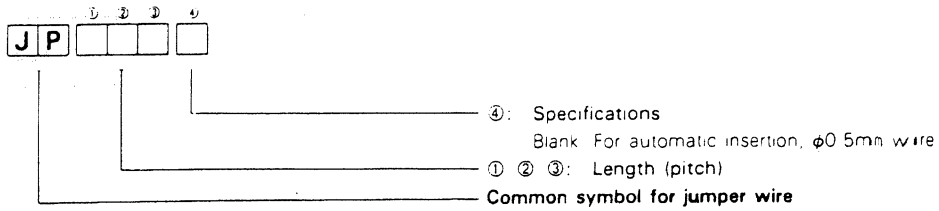
2. Capacitor



3. Wire

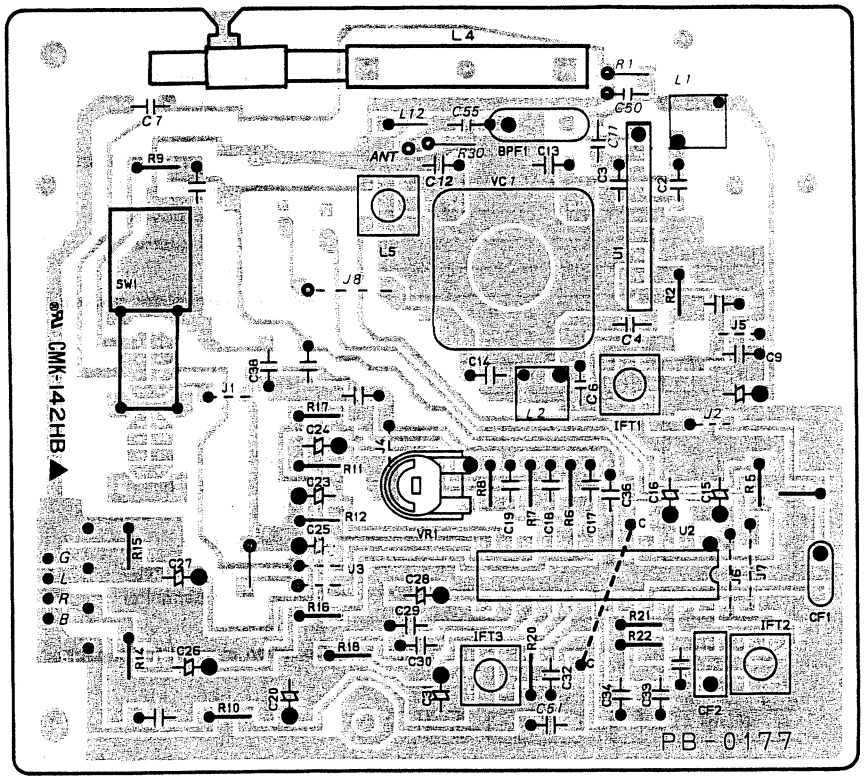


4. Jumper wire



P.C.B. LAYOUT

PB-0177 AM/FM 2-BAND TUNER P.C.B.



REPLACEMENT PARTS LIST

AM/FM 2-BAND TUNER ASS'Y

CD-2000(US)/(UK)/(E)

REF NO.	PARTS NO.	NAME	Q'TY	REMARKS
	LA1185	I. C	1	U 1 (F. End)
	M51535P	I. C	1	U 2 (IF/MPX)
	AM-X- 89	FM CERAMIC FILTER	1	CF 1
	AM-X-135	AM "	1	CF 2
	SFU468B	AM "	1	CF 2 (UK only)
	AM-W-101	FM B.P.F	1	BPF 1
	AM-VC-343	P.V.C.	1	VC 1
	LR-0067	BAR ANTENNA COIL	1	L 4
	LI-0012	FM IFT	1	IFT 1
	LI-0002	FM IFT	1	IFT 3
	LI-0007	AM IFT	1	IFT 2
	LR-0002	AM OSC COIL	1	L 5
	LR-0062	FM RF COIL	1	L 1
	LR-0064	FM OSC COIL	1	L 2
	PB-0177	TUNER PCB	1/2	
6-1	UR40329	ANT HOLDER	1	
122	TSAB3008SZ	TAPPING SCREW BIND	1	Ant. holder

REPLACEMENT PARTS LIST

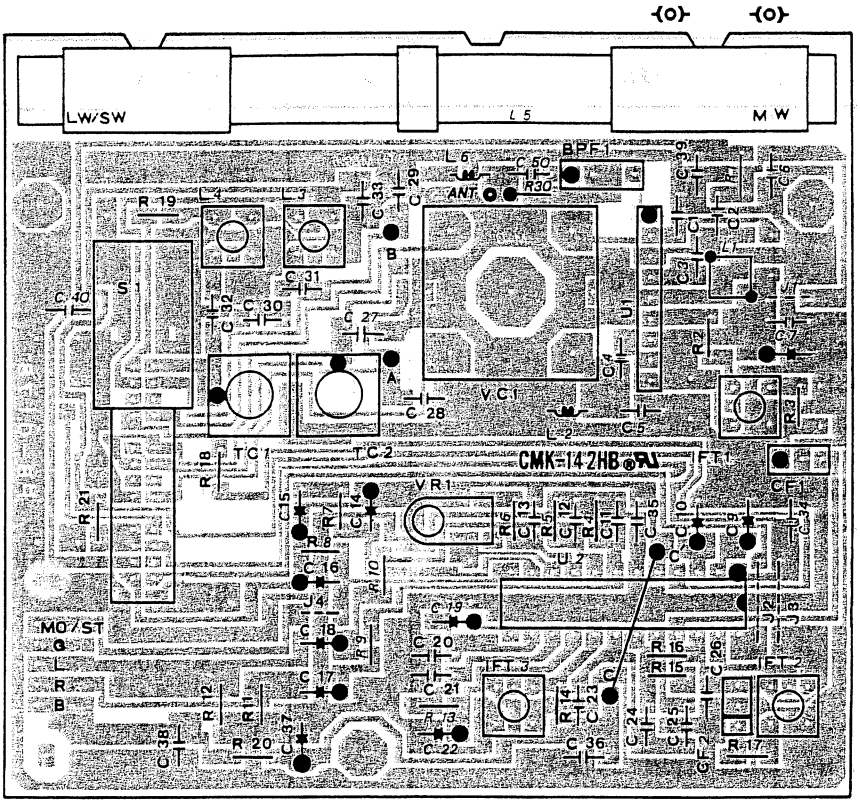
AM/FM 2-BAND TUNER ASS'Y (Cont'd)

CD-2000(US)/(UK)/(E)

REF. NO.	PARTS NO.	NAME	Q'TY	REMARKS
	SW-0095	LEVER SWITCH	1	SW 1
	VR-0024	SEMI-FIXED RESISTOR	1	VR 1 (5K Ω)
	CVP50J-102	P.P CAPACITOR	1	C 19
	CVC50C-2R0SL-X	C. CAPACITOR	1	C 14
	CVC50C-5R0SL-X	〃	1	C 2
	CVC50C-6R0SL-X	〃	1	C 12
	CVC50J-220SL-X	〃	2	C 13, 55
	CVC50J-331SL-X	〃	1	C 38
	CVC50J-561SL-X	〃	1	C 29
	CVC50C-100CH-X	〃	1	C 4
	CVC50J-270CH-X	〃	1	C 6
	CVC50Z-223F -X	〃	7	C 7, 9, 11, 30, 32 C 36, 51
	CVR50K-103 -X	R. CAPACIOTR	2	C 3, 50
	CVR25K-223 -X	〃	2	C 33, 34
	CVR25K-333 -X	〃	2	C 17, 18
	(X= 5m/m	Straight Type)		
	CVA10M-100	A. CAPACITOR	2	C 15, 20
	CVA16M- 10	〃	2	C 25, 31
	CVA25M-3R3	〃	1	C 24
	CVA25M-4R7	〃	2	C 16, 28
	CVA50M- 1	〃	1	C 23
	CVA50M-R47	〃	2	C 26, 27
	LA-0013-4.7 μ	INDUCTOR	1	L 12 (4.7 μ)
	26M-2- 45FA	V. WIRE	1	C ~ C'
	RHD08J-5R6	CN. RESISTOR	1	R 9
	RHD08J-470	〃	1	R 5
	RHD08J-101	〃	2	R 2, 10
	RHD08J-221	〃	1	R 1
	RHD08J-331	〃	1	R 22
	RHD08J-102	〃	1	R 11
	RHD08J-222	〃	3	R 14, 15, 21
	RHD08J-332	〃	2	R 6, 7
	RHD08J-392	〃	3	R 16, 17, 20
	RHD08J-822	〃	1	R 18
	RHD08J-113	〃	1	R 8
	RHD08J-104	〃	1	R 30
	RHD08J-224	〃	1	R 12
	JP-050	JUMPER WIRE	5	J 1, 2, 3, 4, 5
	JP-100	〃	2	J 6, 7

P.C.B. LAYOUT

PB-0178 FM/LW/MW 3-BAND TUNER P.C.B.



REPLACEMENT PARTS LIST

FM/LW/MW 3-BAND TUNER ASS'Y

CD-2000L(UK)/L(E)

REF. NO.	PARTS NO.	NAME	Q'TY	REMARKS
	LA1185	I. C	1	U 1 (F. End)
	M51535P	I. C	1	U 2 (IF/MPX)
	AM-X- 89	FM CERAMIC FILTER	1	CF 1
	AM-X-135	AM "	1	CF 2
	SFU468B	AM "	1	CF 2 (UK only)
	AM-W-101	FM B.P.F	1	BPF 1
	AM-VC-344	P.V.C.	1	VC 1
	LR-0069	BAR ANTENNA COIL	1	L 5
	LI-0012	FM IFT	1	IFT 1
	LI-0002	FM IFT	1	IFT 3
	LI-0007	AM IFT	1	IFT 2
	LR-0018	MW OSC COIL	1	L 3
	LR-0062	FM ANT COIL	1	L 1
	LR-0064	FM OSC COIL	1	L 2
	LR-0004	LW OSC COIL	1	L 4
	LA-0013-4.7 μ	AF COIL	1	L 6 (4.7μH)
6-1	UR40329	ANT HOLDER	1	
122	TSAB3008SZ	TAPPING SCREW BIND	1	Ant holder
	SW-0059	LEVER SWITCH	1	S 1 (Band)
	VR-0024	SEMI-FIXED RESISTOR	1	VR 1 (5K Ω)
	PB-0178	TUNER PCB	1/2	

REPLACEMENT PARTS LIST

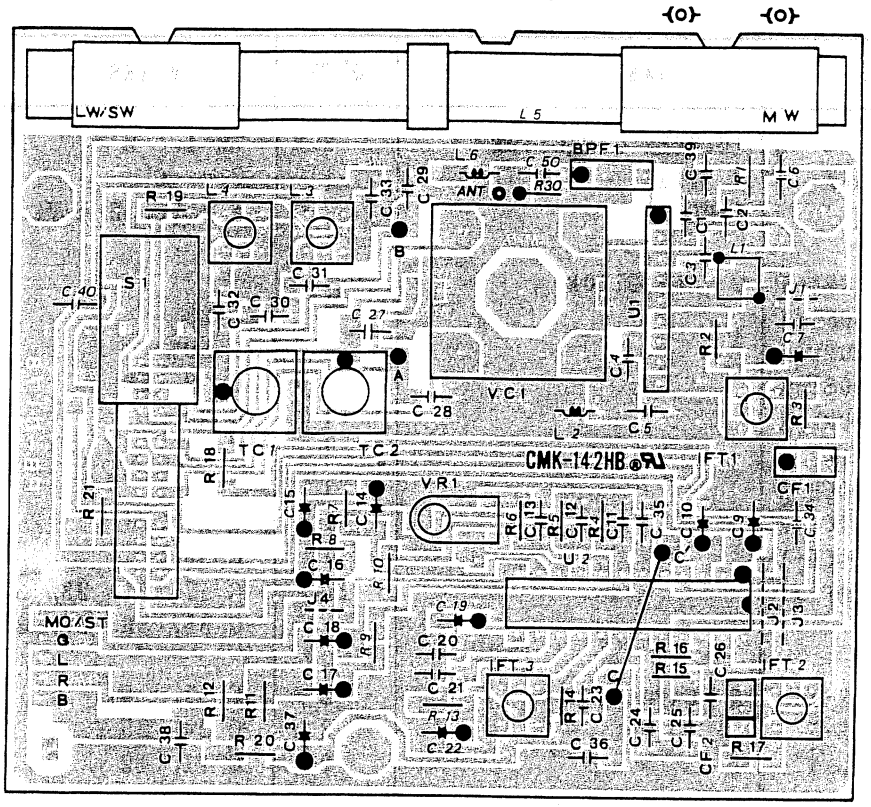
FM/LW/MW 3-BAND TUNER ASS'Y (Cont'd)

CD-2000L(UK)/L(E)

REF. NO.	PARTS NO.	NAME	Q'TY	REMARKS
	VC-0004	TRIMMER CAPACITOR	2	TC 1, 2
	26M-2- 45FA	V. WIRE	1	C ~ C'
	ZT-0005	WIRE	2	A ~VC, B ~VC
	CVC50J-5R0SL-X	C. CAPACITOR	1	C 3
	CVC50J-150SL-X	〃	1	C 28
	CVC50J-220SL-X	〃	1	C 50
	CVC50J-200SL-X	〃	2	C 2, 29
	CVC50J-910SL-X	〃	1	C 30
	CVC50K-561B -X	〃	1	C 20
	CVC50C-100CH-X	〃	1	C 4
	CVC50J-120CH-X	〃	1	C 27
	CVC50J-270CH-X	〃	1	C 5
	CVC50Z-223F-X	〃	10	C 7, 21, 23, 33, 34 C 35, 36, 38, 39, 40
	CVR50K-103-X	R. CAPACITOR	2	C 1, 6
	CVR25K-223-X	〃	2	C 24, 25
	CVR25K-333-X (X= 5m/m	〃 Straight Type)	2	C 11, 12
	CVA10M-100	A. CAPACITOR	2	C 9, 37
	CVA16M- 10	〃	3	C 16, 19, 22
	CVA25M-3R3	〃	1	C 15
	CVA25M-4R7	〃	1	C 10
	CVA50M- 1	〃	1	C 14
	CVA50M-R47	〃	2	C 17, 18
	CVP50J-151	P.P CAPACITOR	1	C 32
	CVP50J-361	〃	1	C 31
	CVP50J-102	〃	1	C 13
	RHD08J-220	CN. RESISTOR	1	R 21
	RHD08J-470	〃	3	R 3, 18, 19
	RHD08J-101	〃	2	R 2, 20
	RHD08J-221	〃	1	R 1
	RHD08J-331	〃	1	R 15
	RHD08J-561	〃	1	R 17
	RHD08J-102	〃	1	R 7
	RHD08J-222	〃	3	R 11, 12, 16
	RHD08J-332	〃	2	R 4, 5
	RHD08J-392	〃	3	R 9, 10, 14
	RHD08J-822	〃	1	R 13
	RHD08J-113	〃	1	R 6
	RHD08J-104	〃	1	R 30
	RHD08J-224	〃	1	R 8
	JP-050	JUMPER WIRE	2	JP 1, 4
	JP-100	〃	2	JP 2, 3

P.C.B. LAYOUT

PB-0178 FM/SW/MW 3-BAND TUNER P.C.B.



REPLACEMENT PARTS LIST

FM/SW/MW 3-BAND TUNER ASS'Y

CD-2000S(X)

REF. NO.	PARTS NO.	NAME	Q'TY	REMARKS
	LA1185	I. C	1	U 1 (F. End)
	M51535P	I. C	1	U 2 (IF/MPX)
	AM-X- 89	FM CERAMIC FILTER	1	CF 1
	AM-X-135	AM "	1	CF 2
	AM-W-101	FM B. P. F	1	BPF 1
	AM-VC-344	P. V. C.	1	VC 1
	LR-0068	BAR ANTENNA COIL	1	L 5
	LI-0012	FM IFT	1	IFT 1
	LI-0002	FM IFT	1	IFT 3
	LI-0007	AM IFT	1	IFT 2
	LR-0018	MW OSC COIL	1	L 3
	LR-0062	FM ANT COIL	1	L 1
	LR-0064	FM OSC COIL	1	L 2
	LR-0044	SW OSC COIL	1	L 4
	LA-0013- 1μ	AF COIL	1	L 6 (1μH)
6-1	UR40329	ANT HOLDER	1	
122	TSAB3008SZ	TAPPING SCREW BIND	1	Ant holder
	SW-0059	LEVER SWITCH	1	S 1 (Band)
	VR-0024	SEMI-FIXED RESISTOR	1	VR 1 (5K Ω)
	PB-0178	TUNER PCB	1/2	

REPLACEMENT PARTS LIST

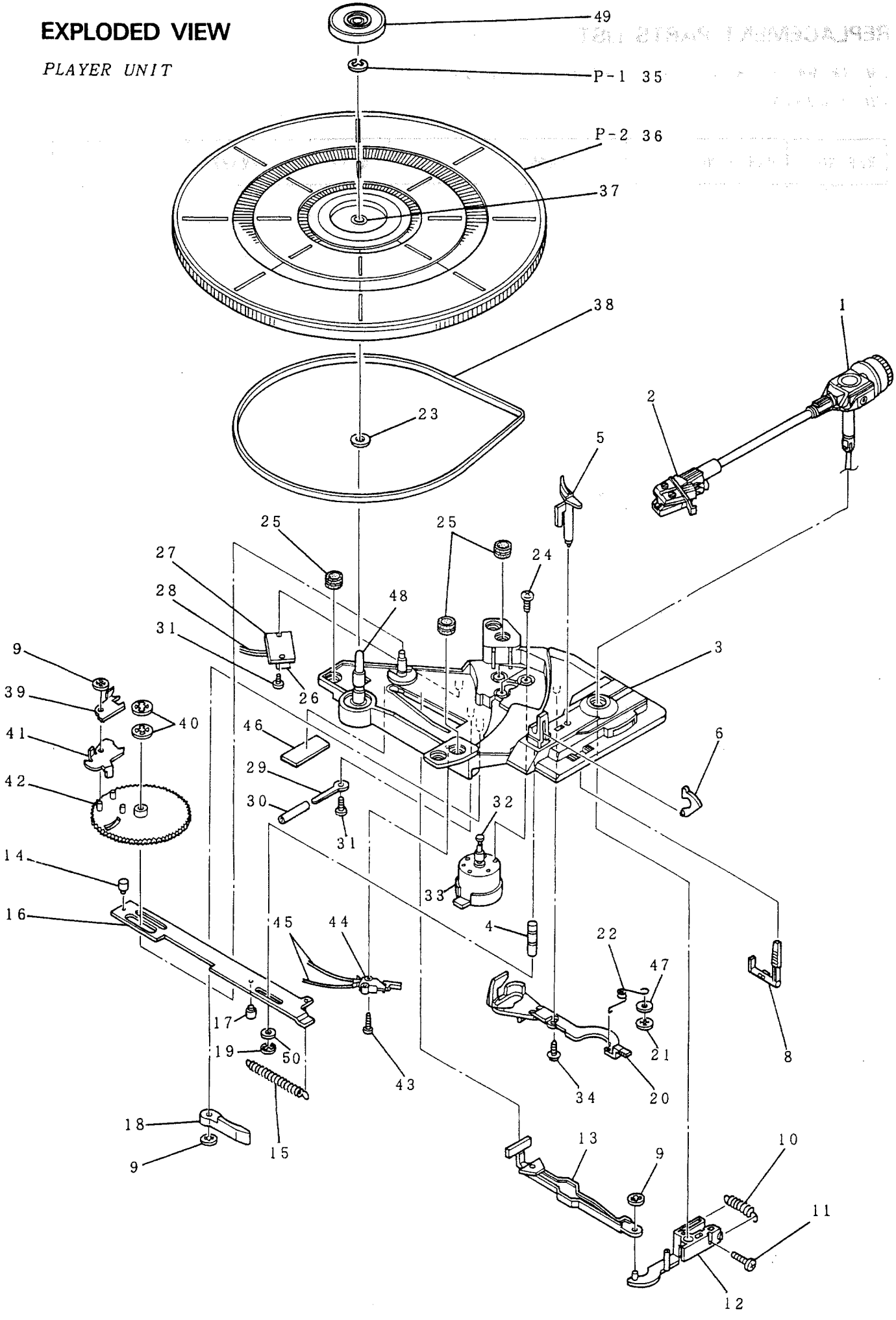
FM/SW/MW 3-BAND TUNER ASS'Y (Cont'd)

CD-2000S(X)

REF. NO.	PARTS NO.	NAME	Q'TY	REMARKS
	VC-0003	TRIMMER CAPACITOR	2	TC 1, 2
	26M-2- 45FA	V. WIRE	1	C ~ C'
	ZT-0005	WIRE	2	A ~VC, B ~VC
	CVC50J-5R0SL-X	C. CAPACITOR	1	C 3
	CVC50J-8R0SL-X	"	1	C 30
	CVC50J-150SL-X	"	1	C 28
	CVC50J-180SL-X	"	1	C 29
	CVC50J-220SL-X	"	1	C 50
	CVC50J-200SL-X	"	1	C 2
	CVC50K-561B -X	"	1	C 20
	CVC50J-5R0CH-X	"	1	C 27
	CVC50C-100CH-X	"	1	C 4
	CVC50J-270CH-X	"	1	C 5
	CVC50Z-223F-X	"	10	C 7, 21, 23, 33, 34 C 35, 36, 38, 39, 40
	CVR50K-103-X	R. CAPACITOR	2	C 1, 6
	CVR25K-223-X	"	2	C 24, 25
	CVR25K-333-X (X= 5m/m	" Straight Type)	2	C 11, 12
	CVA10M-100	A. CAPACITOR	2	C 9, 37
	CVA16M- 10	"	3	C 16, 19, 22
	CVA25M-3R3	"	1	C 15
	CVA25M-4R7	"	1	C 10
	CVA50M- 1	"	1	C 14
	CVA50M-R47	"	2	C 17, 18
	CVP50J-361	P.P CAPACITOR	1	C 31
	CVP50J-102	"	1	C 13
	CVP50J-562	"	1	C 32
	RHD08J-220	CN. RESISTOR	1	R 21
	RHD08J-470	"	3	R 3, 18, 19
	RHD08J-101	"	2	R 2, 20
	RHD08J-221	"	1	R 1
	RHD08J-331	"	1	R 15
	RHD08J-561	"	1	R 17
	RHD08J-102	"	1	R 7
	RHD08J-222	"	3	R 11, 12, 16
	RHD08J-332	"	2	R 4, 5
	RHD08J-392	"	3	R 9, 10, 14
	RHD08J-822	"	1	R 13
	RHD08J-113	"	1	R 6
	RHD08J-104	"	1	R 30
	RHD08J-224	"	1	R 8
	JP-050	JUMPER WIRE	2	JP 1, 4
	JP-100	"	2	JP 2, 3

EXPLODED VIEW

PLAYER UNIT



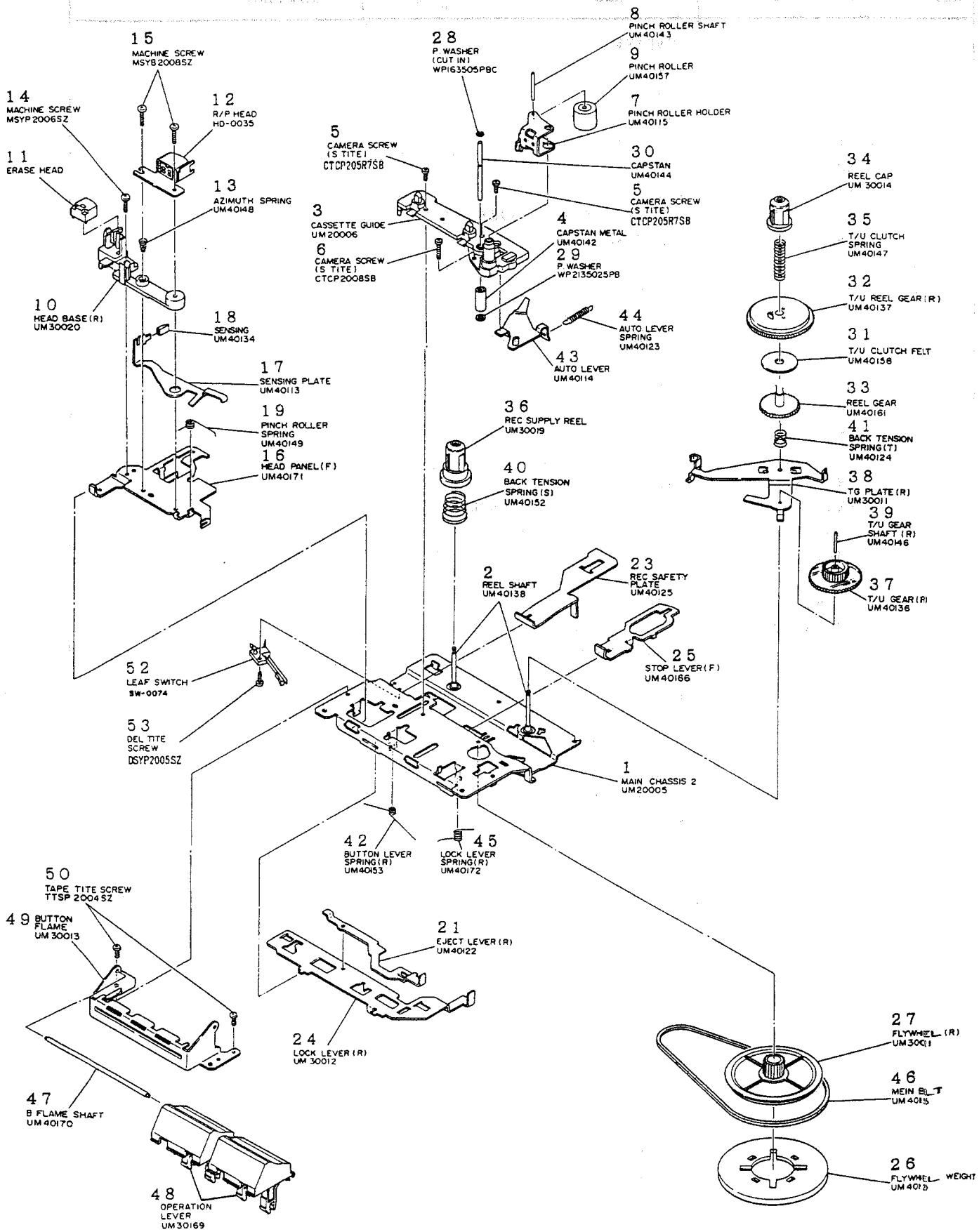
REPLACEMENT PARTS LIST

PLAYER UNIT

REF. NO.	PARTS NO.	NAME	Q'TY	REMARKS
1	PA1143	TONEARM	1	
2	CZ800-1	CARTRIDGE	1	
3	SM41-01	CHASSIS	1	
4	SP41-4	SHAFT	1	
5	SM38	TONEARM ELEVATOR	1	
6	SPB36-1	ARM CLIP	1	
7	E37-1	TIE	1	
8	SPB133-4A	OIL LIFTER ACCESSORY	1	
9	CSB73	3mm RING	2	
10	SA24-1	SPRING	1	
11	SC0320RBZI	SCREW	1	
12	SE24	LINK, RETURN	1	
13	SE108	SLIDE PLATE, RETURN	1	
14	SA112	STUD	1	
15	SA110-201	SPRING	1	
16	SP111B	LEVER, RETURN	1	
17	SE113-1	STUD	1	
18	PT108-1	SHUT OFF PLATE	1	
19	ERE73A	3mm E RING	1	
20	SM60-01	SPEED CHANGE ACCESSORY	1	
21	CSB72-5	2.6mm RING	1	
22	SM60-7-01	SPRING	1	
23	SA56-1	WASHER	1	
24	SC2607RINI	SCREW	3	
25	SM306-02	RUBBER STAND	3	
26	BHK45	CONNECTOR	1	
27	PC838	P.C. BOARD	1	
28	SB280	WIRE	1	
29	SM26-1	LUG	1	
30	3.2mmx20mm	TUBE	1	
31	SC0308RBZI	SCREW	2	
32	SM95	PULLEY, MOTOR	1	
33	SC100-3	MOTOR	1	
34	SC0306WBZI	SCREW	1	
35(P-1)	ERE76	6mm E RING	1	
36(P-2)	SPB52	PLATTER (TURN TABLE)	1	
37	SB56	BRASS	1	
38	SA70	BELT	1	
39	SA123	CHUTCH PLATE	1	
40	CSB74	4mm RING	2	
41	SA121	CHUTCH PLATE	1	
42	SA120	SPUR GEAR	1	
43	SC02124BBI	SCREW	1	
44	RLS0201	SWITCH	1	
45	SR280	WIRE	2	
46	SA207	LABEL	1	
47	CP27-1	WASHER	1	
48	SM55	SPINDLE	1	
49	SK22	ADAPTOR	1	
50	FW084505IZ	WASHER	1	

EXPLODED VIEW

Mechanism Ass'y (M-24F No.1)


15 MACHINE SCREW MSYB2008SZ
14 MACHINE SCREW MSYP2006SZ
12 R/P HEAD HD-0035
11 ERASE HEAD
13 AZIMUTH SPRING UM40148
10 HEAD BASE(R) UM30020
18 SENSING UM40134
17 SENSING PLATE UM40113
19 PINCH ROLLER SPRING UM40149
16 HEAD PANEL(F) UM40171
28 P.WASHER (CUT IN) WP163505PBC
8 PINCH ROLLER SHAFT UM40143
9 PINCH ROLLER UM40157
7 PINCH ROLLER HOLDER UM40115
5 CAMERA SCREW (S TITE) CTCP205R7SB
30 CAPSTAN UM40144
5 CAMERA SCREW (S TITE) CTCP205R7SB
3 CASSETTE GUIDE UM20006
4 CAPSTAN METAL UM40142
6 CAMERA SCREW (S TITE) CTCP2008SB
29 P.WASHER WP2135025PB
44 AUTO LEVER SPRING UM40123
43 AUTO LEVER UM40114
34 REEL CAP UM 30014
35 T/U CLUTCH SPRING UM40147
32 T/U REEL GEAR(R) UM40137
31 T/U CLUTCH FELT UM40158
33 REEL GEAR UM40161
41 BACK TENSION SPRING(T) UM40124
38 TG PLATE(R) UM30011
39 T/U GEAR SHAFT(R) UM40146
37 T/U GEAR(R) UM40136
36 REC SUPPLY REEL UM30019
40 BACK TENSION SPRING(S) UM40152
2 REEL SHAFT UM40138
23 REC SAFETY PLATE UM40125
25 STOP LEVER(F) UM40166
52 LEAF SWITCH SW-0074
53 DEL TITE SCREW DSYP2005SZ
1 MAIN CHASSIS 2 UM20005
42 BUTTON LEVER SPRING(R) UM40153
45 LOCK LEVER SPRING(R) UM40172
50 TAPE TITE SCREW TTSP 2004 SZ
49 BUTTON FLAME UM 30013
21 EJECT LEVER(R) UM40122
24 LOCK LEVER(R) UM 30012
47 B FLAME SHAFT UM40170
48 OPERATION LEVER UM30169
27 FLYWHEEL(R) UM30011
46 MEIN BELT UM40115
26 FLYWHEEL WEIGHT UM4012

REPLACEMENT PARTS LIST

MECHANISM ASS'Y (M-24F No.1)

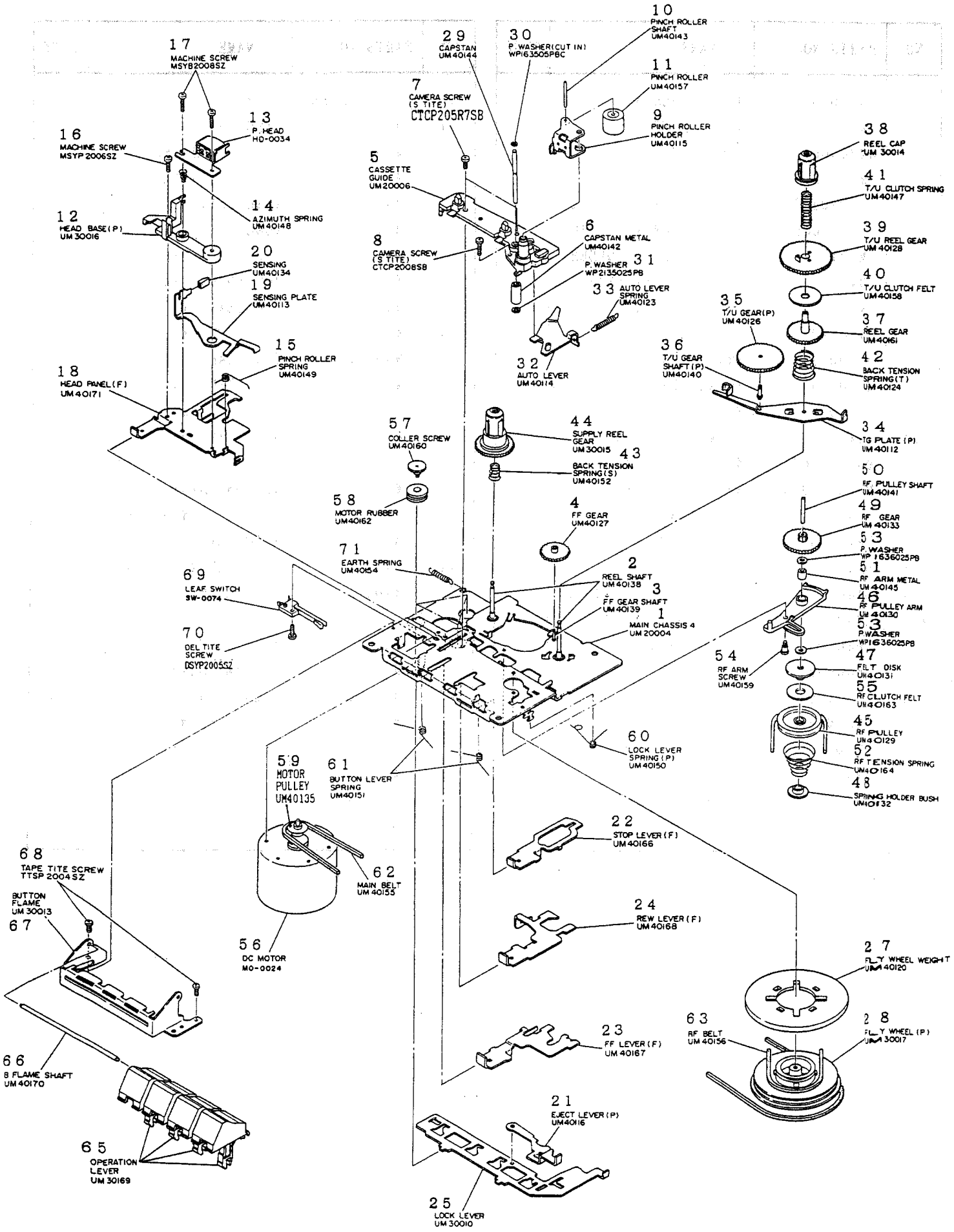
NO.	PARTS NO.	NAME	Q'TY
1	UM20005	MAIN CHASSIS 2	1
2	UM40138	REEL SHAFT	2
3	UM20006	CASSETTE GUIDE	1
4	UM40142	CAPSTAN METAL	1
5	CTCP205R7SB	CAMERA SCREW(S TITE)	2
6	CTCP2008SB	CAMERA SCREW(S TITE)	1
7	UM40115	PINCH ROLLER HOLDER	1
8	UM40143	PINCH ROLLER SHAFT	1
9	UM40157	PINCH ROLLER	1
10	UM30020	HEAD BASE (R)	1
11	HD-0032	ERASE HEAD(DC Bias)	1
11	HD-0009	ERASE HEAD(AC Bias)	1
12	HD-0035	R/P HEAD	1
13	UM40148	AZIMUTH SPRING	1
14	MSYP2006SZ	MACHINE SCREW	1
15	MSYB2008SZ	MACHINE SCREW	2
16	UM40171	HEAD PANEL (F)	1
17	UM40113	SENSING PLATE	1
18	UM40134	SENSING	1
19	UM40149	PINCH ROLLER SPRING	1
M-1	UM40184	EJECT SLIDE LEVER(F)	1
21	UM40122	EJECT LEVER (R)	1
M-2	UM30022	REC SAFETY LEVER	1
23	UM40125	REC SAFETY PLATE	1
24	UM30012	LOCK LEVER (R)	1
25	UM40166	STOP LEVER (F)	1
26	UM40120	FLYWHEEL WEIGHT	1
27	UM30021	FLYWHEEL (R)	1
28	WP163505PBC	P. WASHER (CUT IN)	1

NO.	PARTS NO.	NAME	Q'TY
29	WP2135025PB	P. WASHER	1
30	UM40144	CAPSTAN	1
31	UM40158	T/U CLUTCH FELT	1
32	UM40137	T/U REEL GEAR (R)	1
33	UM40161	REEL GEAR	1
34	UM30014	REEL CAP	1
35	UM40147	T/U CLUTCH SPRING	1
36	UM30019	REC SUPPLY REEL	1
37	UM40136	T/U GEAR (R)	1
38	UM30011	TG PLATE (R)	1
39	UM40146	T/U GEAR SHAFT (R)	1
40	UM40152	BACK TENSION SPRING (S)	1
41	UM40124	BACK TENSION SPRING (T)	1
42	UM40153	BUTTON LEVER SPRING (R)	1
43	UM40114	AUTO LEVER	1
44	UM40123	AUTO LEVER SPRING	1
45	UM40172	LOCK LEVER SPRING (R)	1
46	UM40155	MAIN BELT	1
47	UM40170	B FLAME SHAFT	1
48	UM30169	OPERATION LEVER	4
49	UM30013	BUTTON FLAME	1
50	TTSP2004SZ	TAP TITE SCREW	2
M-3	UM40165	PACK SPRING B	1
52	SW-0074	LEAF SWITCH	1
53	DSYP2005SZ	DEL TITE SCREW	1

NOTE: Motor and head are subject to change without notice for improvement.

EXPLODED VIEW

Mechanism Ass'y (M-24F No.2)


17 MACHINE SCREW MSYB2008SZ
16 MACHINE SCREW MSYP2006SZ
13 P. HEAD HD-0034
14 AZIMUTH SPRING UM40148
12 HEAD BASE(P) UM30016
20 SENSING UM40134
19 SENSING PLATE UM40113
15 PINCH ROLLER SPRING UM40149
18 HEAD PANEL(F) UM40171
29 CAPSTAN UM40144
30 P. WASHER(CUT IN) WP163505PBC
10 PINCH ROLLER SHAFT UM40143
11 PINCH ROLLER UM40157
9 PINCH ROLLER HOLDER UM40115
7 CAMERA SCREW (S TITE) CTCP205R7SB
5 CASSETTE GUIDE UM20006
8 CAMERA SCREW (S TITE) CTCP2008S8
6 CAPSTAN METAL UM40142
31 P. WASHER WP2135025PB
33 AUTO LEVER SPRING UM40123
32 AUTO LEVER UM40114
38 REEL CAP UM 30014
41 T/U CLUTCH SPRING UM40147
39 T/U REEL GEAR UM 40128
40 T/U CLUTCH FELT UM40158
35 T/U GEAR(P) UM40126
37 REEL GEAR UM40161
36 T/U GEAR SHAFT(P) UM40140
42 BACK TENSION SPRING(T) UM40124
34 TG PLATE (P) UM40112
57 COLLER SCREW UM40160
44 SUPPLY REEL GEAR UM30015
43 BACK TENSION SPRING(S) UM40152
58 MOTOR RUBBER UM40162
4 FF GEAR UM40127
50 RF PULLEY SHAFT UM40141
49 RF GEAR UM 40133
53 P. WASHER WP 1636025PB
51 RF ARM METAL UM40145
46 RF PULLEY ARM UM 40130
53 P.WASHER WP1636025PB
54 RF ARM SCREW UM40159
47 FELT DISK UM40131
55 RF CLUTCH FELT UM40163
45 RF PULLEY UM40129
52 RF TENSION SPRING UM40164
48 SPRING HOLDER BUSH UM40132
71 EARTH SPRING UM40154
2 REEL SHAFT UM40138
3 FF GEAR SHAFT UM40139
1 MAIN CHASSIS 4 UM 20004
69 LEAF SWITCH SW-0074
70 OEL TITE SCREW DSYP2005SZ
60 LOCK LEVER SPRING (P) UM40150
59 MOTOR PULLEY UM40135
61 BUTTON LEVER SPRING UM40151
62 MAIN BELT UM 40155
56 DC MOTOR M0-0024
22 STOP LEVER (F) UM40166
24 REW LEVER (F) UM40168
68 TAPE TITE SCREW TTSP 2004SZ
BUTTON FLAME UM 30013
67
66 8 FLAME SHAFT UM40170
65 OPERATION LEVER UM 30169
23 FF LEVER (F) UM 40167
21 EJECT LEVER (P) UM40116
25 LOCK LEVER UM 30010
27 FLY WHEEL WEIGHT UM 40120
63 RF BELT UM 40156
28 FLY WHEEL (P) UM 30017

REPLACEMENT PARTS LIST

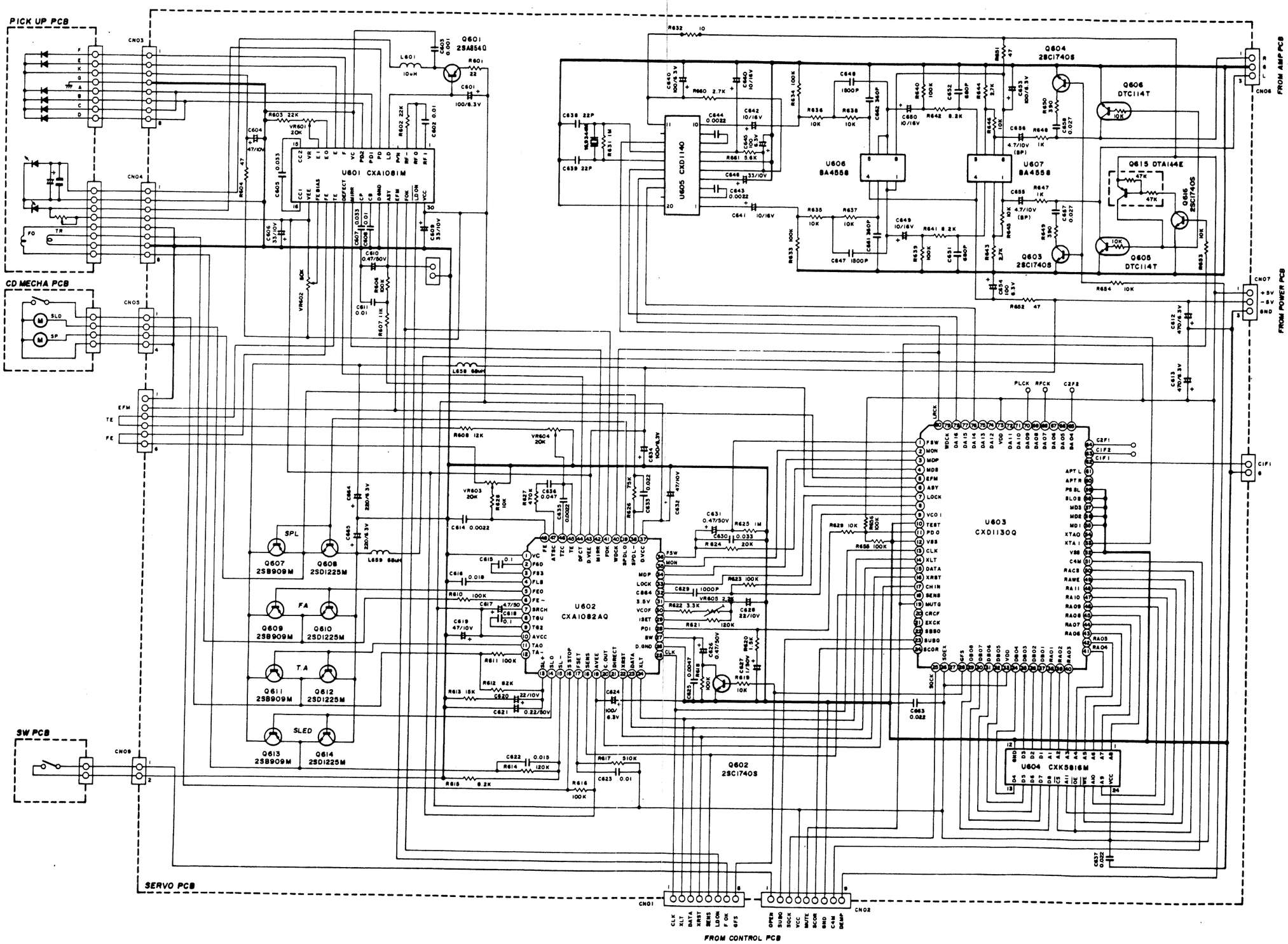
MECHANISM ASS'Y (M-24F No.2)

NO.	PARTS NO.	NAME	Q'TY
1	UM20004	MAIN CHASSIS 4	1
2	UM40138	REEL SHAFT	2
3	UM40139	FF GEAR SHAFT	1
4	UM40127	FF GEAR	1
5	UM20006	CASSETTE GUIDE	1
6	UM40142	CAPSTAN METAL	1
7	CTCP205R7SB	CAMERA SCREW(S TITE)	2
8	CTCP2008SB	CAMERA SCREW(S TITE)	1
9	UM40115	PINCH ROLLER HOLDER	1
10	UM40143	PINCH ROLLER SHAFT	1
11	UM40157	PINCH ROLLER	1
12	UM30016	HEAD BASE (P)	1
13	HD-0034	P. HEAD	1
14	UM40148	AZIMUTH SPRING	1
15	UM40149	PINCH ROLLER SPRING	1
16	MSYP2006SZ	MACHINE SCREW	1
17	MSYB2008SZ	MACHINE SCREW	2
18	UM40171	HEAD PANEL (F)	1
19	UM40113	SENSING PLATE	1
20	UM40134	SENSING	1
21	UM40116	EJECT LEVER (P)	1
22	UM40166	STOP LEVER (F)	1
23	UM40167	FF LEVER (F)	1
24	UM40168	REWIND LEVER (F)	1
25	UM30010	LOCK LEVER (P)	1
M-3	UM40165	PACK SPRING (B)	1
27	UM40120	FLYWHEEL WEIGHT	1
28	UM30017	FLYWHEEL (P)	1
29	UM40144	CAPSTAN	1
30	WP163505PBC	P. WASHER (CUT IN)	1
31	WP2135025PB	P. WASHER	1
32	UM40114	AUTO LEVER	1
33	UM40123	AUTO LEVER SPRING	1
34	UM40112	TG PLATE (P)	1
35	UM40126	T/U GEAR (P)	1
36	UM40140	T/U GEAR SHAFT (P)	1
37	UM40161	REEL GEAR	1
38	UM30014	REEL CAP	1
39	UM40128	T/U REEL GEAR	1
40	UM40158	T/U CLUTCH FELT	1
41	UM40147	T/U CLUTCH SPRING	1
42	UM40124	BACK TENSION SPRING (T)	1
43	UM40152	BACK TENSION SPRING (S)	1
44	UM30015	SUPPLY REEL GEAR	1
45	UM40129	RF PULLEY	1
46	UM40130	RF PULLEY ARM	1
47	UM40131	FELT DISK	1
48	UM40132	SPRING HOLDER BUSH	1
49	UM40133	RF GEAR	1
50	UM40141	RF PULLEY SHAFT	1
51	UM40145	RF ARM METAL	1
52	UM40164	RF TENSION SPRING	1
53	WP1636025PB	P. WASHER	2
54	UM40159	RF ARM SCREW	1
55	UM40163	RF CLUTCH FELT	1
56	MO-0024	DC MOTOR	1
57	UM40160	COLLER SCREW	3
58	UM40162	MOTOR RUBBER	3
59	UM40135	MOTOR PULLEY	1
60	UM40150	LOCK LEVER SPRING(P)	1
61	UM40151	BUTTON LEVER SPRING (P)	2
62	UM40155	MAIN BELT	1
63	UM40156	RF BELT	1
M-1	UM40184	EJECT SLIDE LEVER(F)	1
65	UM30169	OPEATION LEVER	4
66	UM40170	B FLAME SHAFT	1
67	UM30013	BUTTON FLAME	1
68	TTSP2004SZ	TAP TITE SCREW	2
69	SW-0074	LEAF SWITCH	1
70	DSYP2005SZ	DEL TITE SCREW	1
M-4 (71)	UM40154	EARTH SPRING	1

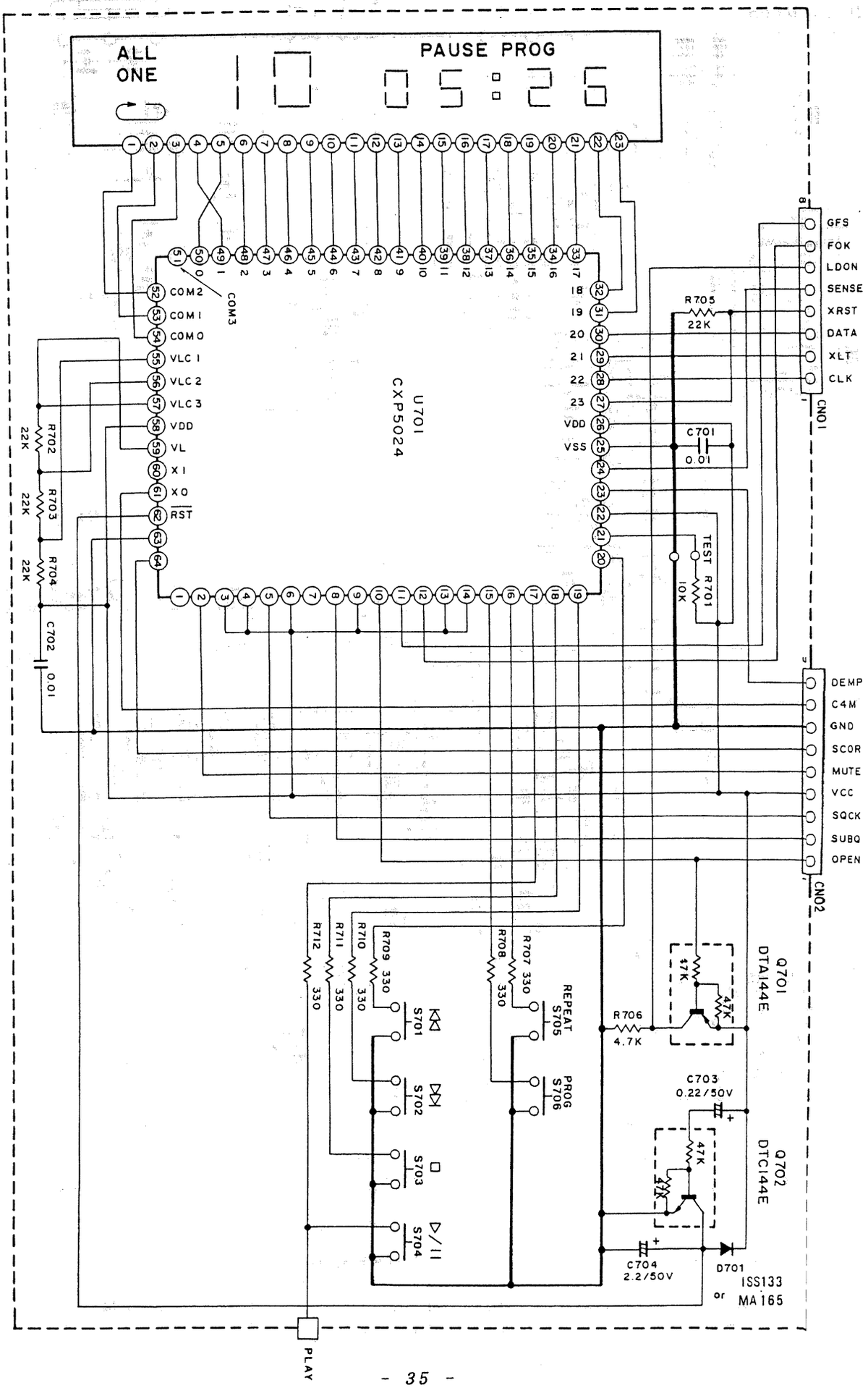
NOTE: Motor and head are subject to change without notice for improvement.

SCHEMATIC DIAGRAM

SERVO



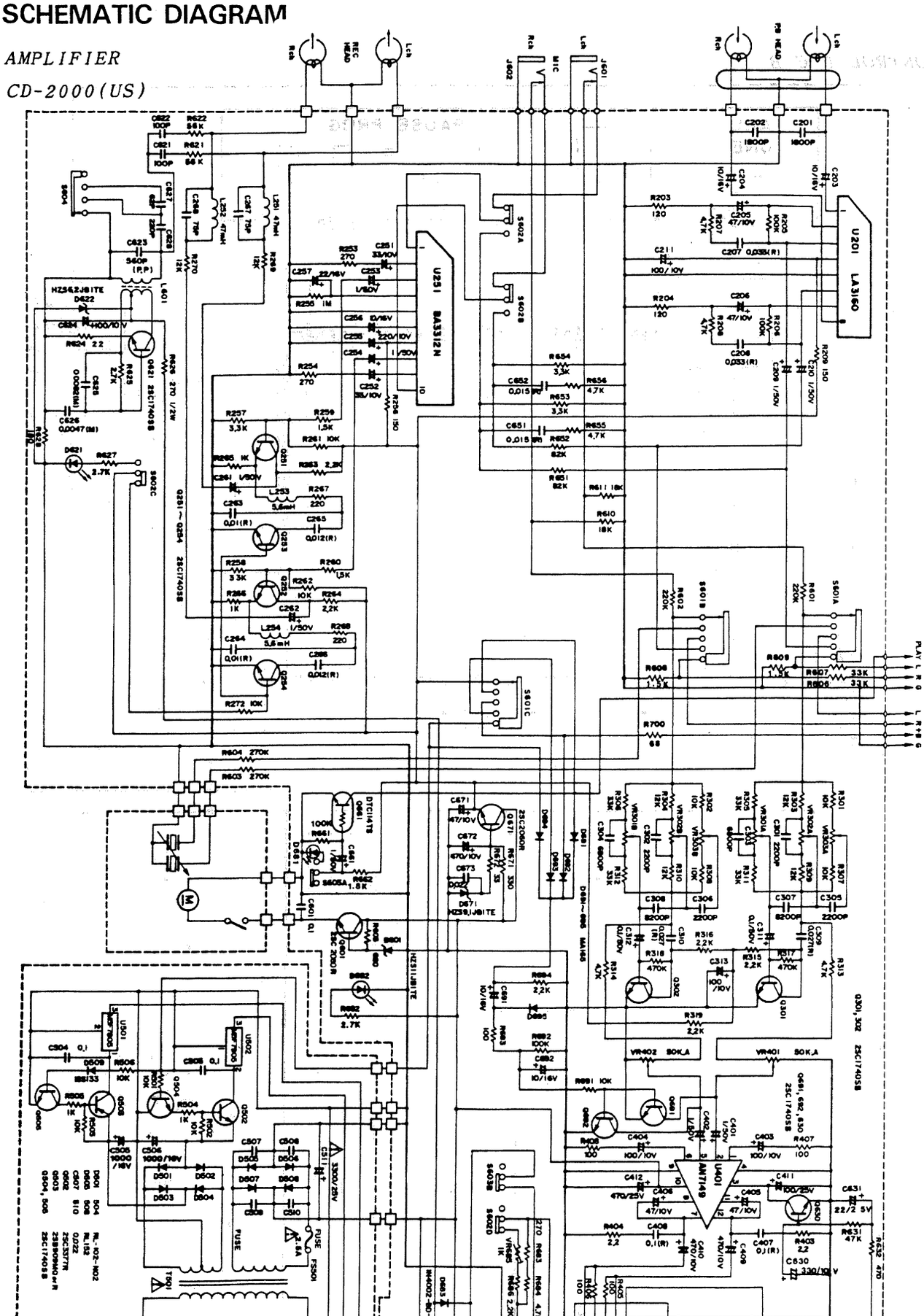
CONTROL P.C.B.

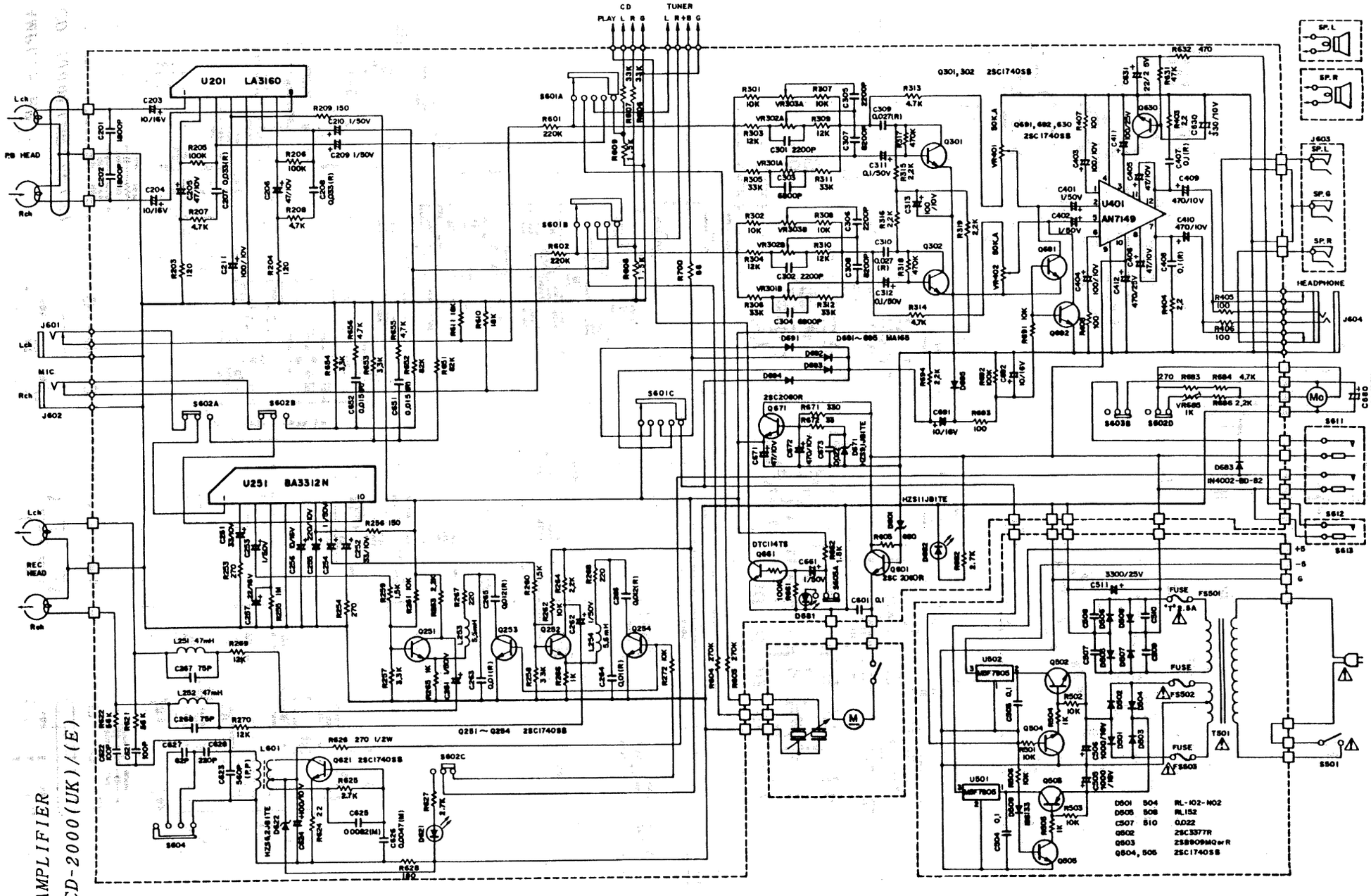

ALL ONE
PAUSE PROG
U701
CXP5024
COM2
COM1
COM0
COM3
VLC 1
VLC 2
VLC 3
VDD
VL
X I
X O
RST
VDD
VSS
R702 22K
R703 22K
R704 22K
C702 0.01
R705 22K
C701 0.01
TEST R701 10K
GFS
FOK
LDON
SENSE
XRST
DATA
XLT
CLK
CN01
DEMP
C4M
GND
SCOR
MUTE
VCC
SQCK
SUBQ
OPEN
CN02
R712 330
R711 330
R710 330
R709 330
R708 330
R707 330
S701
S702
S703
S704
REPEAT S705
PROG S706
R706 4.7K
Q701 DTA144E
47K
47K
C703 0.22/50V
Q702 DTC144E
47K
47K
C704 2.2/50V
D701 ISS133 or MA165
PLAY

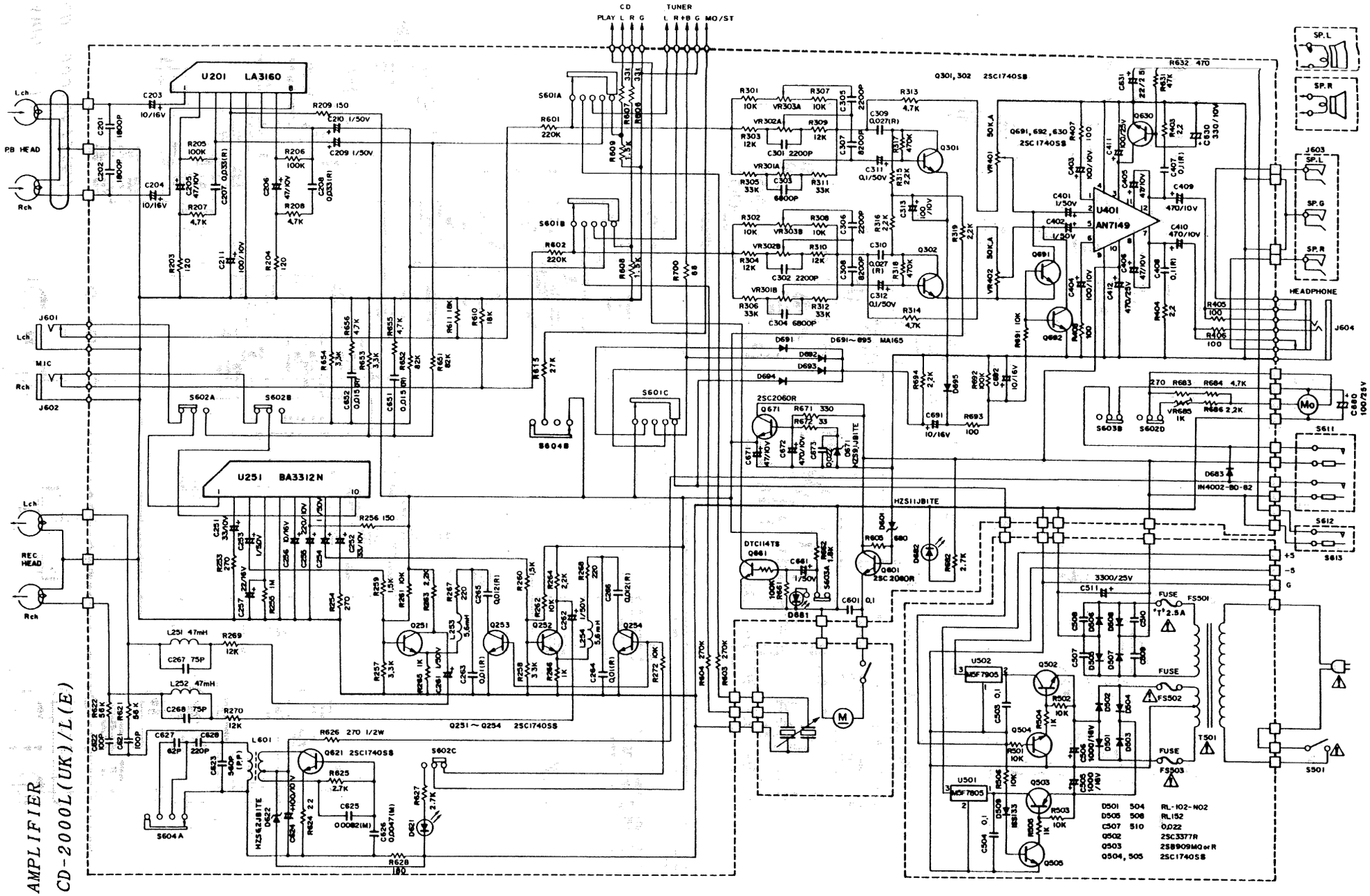
SCHEMATIC DIAGRAM

AMPLIFIER

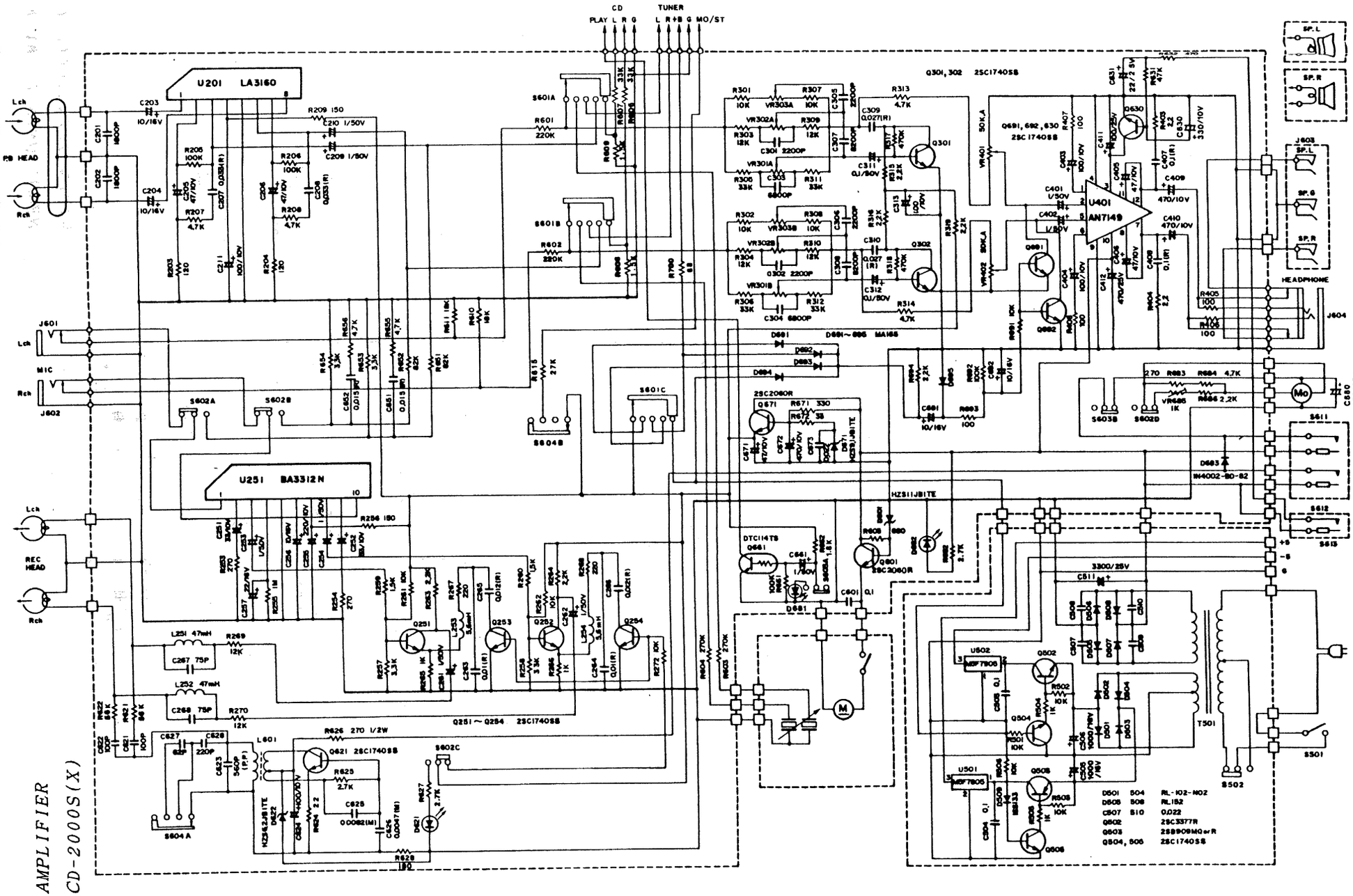
CD-2000(US)




AMPLIFIER
CD-2000(UK)/(E)
U201 LA3160
U251 BA3312N
U401 AN7149
CD
TUNER
PLAY L R G
L R+B G
Lch
Rch
PB HEAD
REC HEAD
MIC
J601
J602
J603
J604
HEADPHONE
SP.L
SP.R
S601A
S601B
S601C
S602A
S602B
S602C
S602D
S603
S604
S611
S612
S613
S501
Q301, 302 2SC1740SB
Q401, 402, 630 2SC1740SB
Q251 ~ Q254 2SC1740SB
Q621 2SC1740SB
Q671 2SC2060R
Q661 DTC114TS
Q801 2SC2060R
D681 HZS11JBITE
D682 HZS12JBITE
D683 IN4002-BD-82
D691 ~ 695 MA165
US01 MBF7805
US02 MBF7805
TS01
FS501 2.5A
FS502
FS503
+5
-5
G
3300/25V
D501 S04 RL-102-N02
D505 S08 RL152
C507 S10 0.022
Q502 2SC3377R
Q503 2SB909MQ or R
Q504, 505 2SC1740SB


AMPLIFIER
CD-2000L(UK)/L(E)
U201 LA3160
U251 BA3312N
U401 AN7149
CD
PLAY L R G
TUNER
L R+B G MO/ST
Lch
Rch
PB HEAD
REC HEAD
MIC
J601
J602
J603
J604
SP.L
SP.R
SP.F
SP.G
HEADPHONE
Mo
S601A
S601B
S601C
S602A
S602B
S602C
S602D
S603B
S604A
S604B
S611
S612
S613
S501
Q301, 302 2SC1740SB
Q691, 692, 630 2SC1740SB
Q621 2SC1740SB
Q251 ~ Q254 2SC1740SB
Q661 DTC114TS
Q671 2SC2060R
Q601 2SC2060R
D691 D691~695 MA165
D683 IN4002-80-82
D621 HZS6ZJBITE
D671 HZS11JBITE
D681 HZS11JBITE
FUSE
FS501
FS502
FS503
T501
'T' 2.5A
U502 MDF7905
U501 MDF7805
Q501 504 RL-102-N02
D505 506 RL152
C507 510 0.022
Q502 2SC3377R
Q503 2SB909MQ or R
Q504, 505 2SC1740SB

MANUALS DIY AMPLIFIER

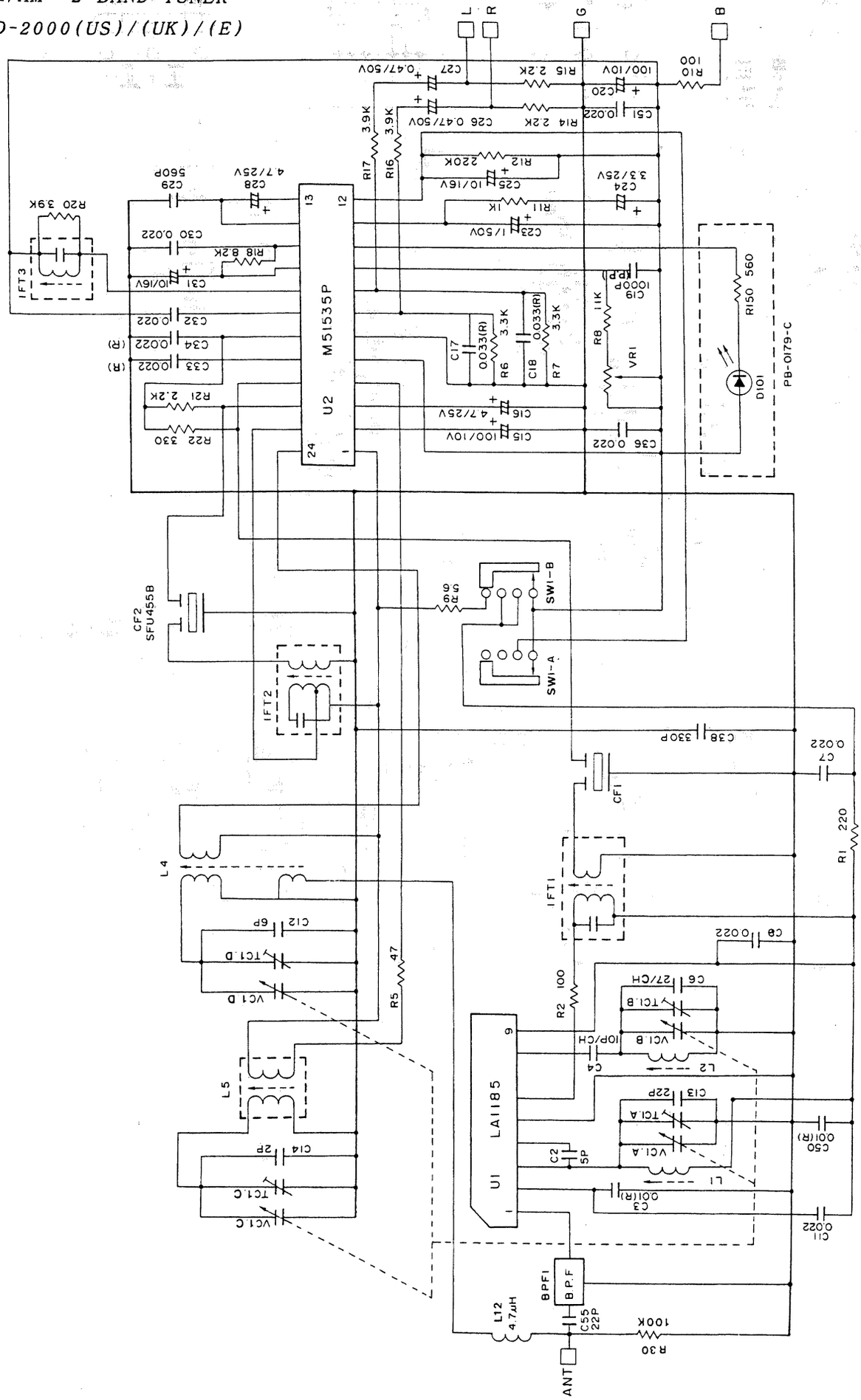


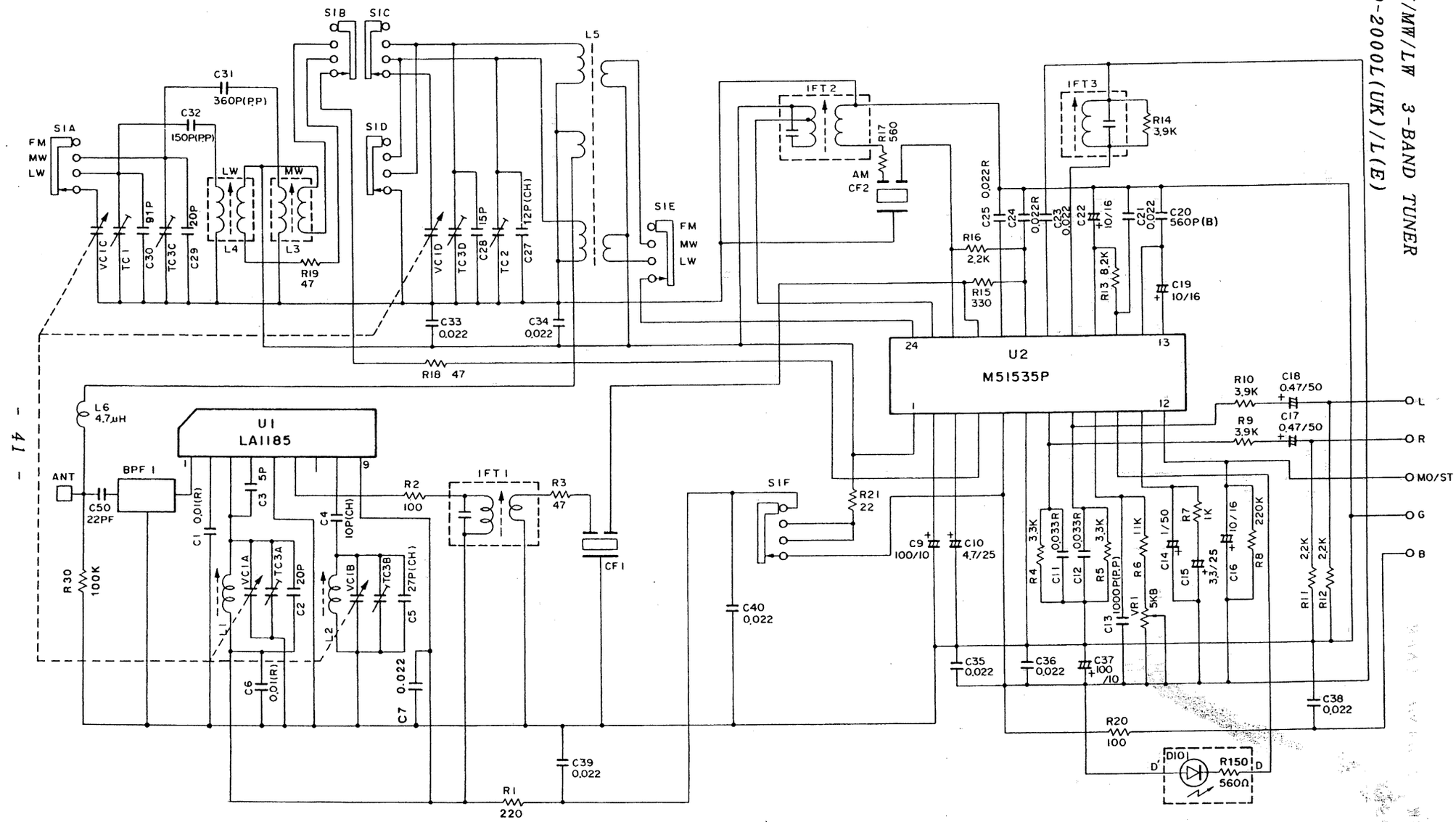
AMPLIFIER
CD-2000S(X)

SCHEMATIC DIAGRAM

FM/AM 2-BAND TUNER

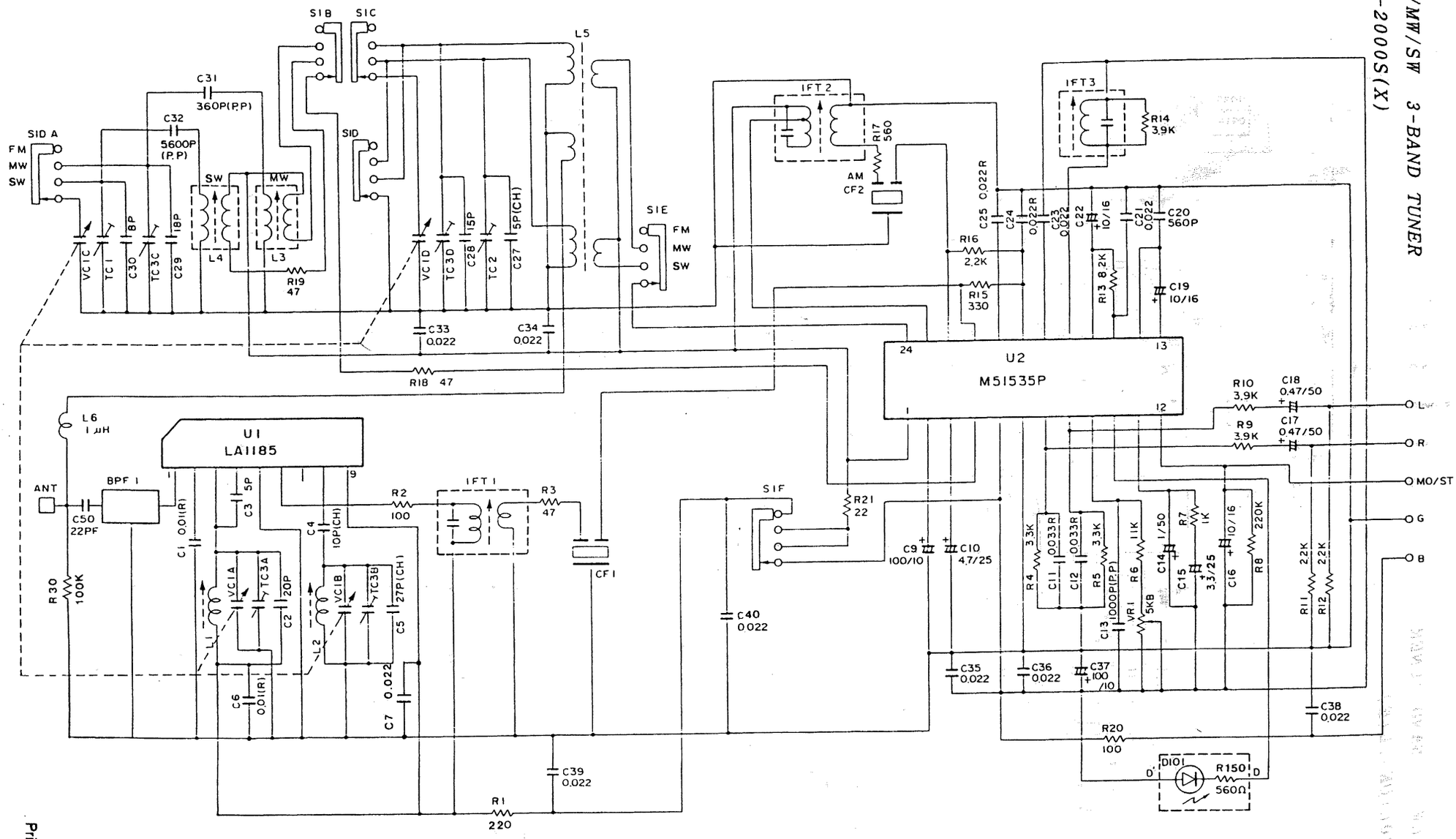
CD-2000(US)/(UK)/(E)




SIA
FM
MW
LW
SIB
SIC
SID
SIE
SIF
C31
360P(PP)
C32
150P(PP)
LW
MW
L4
L3
L5
VC1C
TC1
C30
TC3C
C29
B1P
20P
R19
47
VC1D
TC3D
C28
15P
TC2
C27
12P(CH)
C33
0.022
C34
0.022
R18 47
IFT2
R17
560
AM
CF2
IFT3
R14
3.9K
C25 0.022R
C24
0.022R
C23
0.022
C22
10/16
C21
0.022
C20
560P(B)
R16
2.2K
R15
330
R13 8.2K
C19
10/16
U2
M51535P
24
13
1
12
R10
3.9K
C18
0.47/50
R9
3.9K
C17
0.47/50
L
R
MO/ST
G
B
L6
4.7μH
U1
LA1185
ANT
BPF 1
C50
22PF
C1 0.01(R)
C3 5P
C4
10P(CH)
R2
100
IFT1
R3
47
CF1
R21
22
C9
100/10
C10
4.7/25
C40
0.022
R4
3.3K
C11
0.033R
C12
0.033R
R5
3.3K
1000P(P.P)
R6
11K
VR1
5KB
C13
C14
1/50
R7
1K
C15
3.3/25
C16
10/16
R8
220K
R11
2.2K
R12
2.2K
R30
100K
L1
VC1A
TC3A
C2
20P
L2
VC1B
TC3B
C5
27P(CH)
C6
0.01(R)
C7
0.022
C35
0.022
C36
0.022
C37
100
/10
C38
0.022
R20
100
D10
R150
560Ω
D'
D
C39
0.022
R1
220

FM/MW/SW 3-BAND TUNER

CD-2000S(X)



Printed in Japan